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FAMILY AND FRIENDS OF CANCER PATIENTS: PROBLEMS IN SOCIAL SUPPORT.

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FAMILY AND FRIENDS OF CANCER PATIENTS: PROBLEMS IN SOCIAL SUPPORT

by

Nancy J. Friesen

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ABSTRACT

Most of the literature on the stress associated with the support of cancer patients is anecdotal and speculative. This study sought to systematically explore problems in giving support. A total of 157 family members and friends of cancer patients were involved; most were administered a questionnaire while waiting for patients undergoing radiation or chemotherapy treatment at a local clinic.

The first objective was to identify some of the broader dimensions underlying specific support problems and to develop an instrument to tap these dimensions. Items generated by a literature review were presented to over 500 subjects. Through factor analysis, three basic dimensions were isolated: Affect Arousal, Task Ambiguity, and Personal Cost. These dimensions appeared consistently across the four types of support examined: Practical Help, Emotional Expression, Advice and Guidance, and Empathic Understanding. The questionnaire also included items tapping contextual or background variables, network characteristics, and satisfaction with support given in each domain.

The second objective involved the examination of differences in support problems by type of support. For all four types of support, the ambiguity of the support task was most important, followed by personal cost. Affect arousal was found to be less salient in constraining support given. This was in contrast to many observations which cite the importance of negative emotional response in the experience of support problems.

The third objective involved exploration of the correlates of support problems and of satisfaction with support given. Disease characteristics were not found to be particularly significant. An important demographic variable was age of the support person, with younger support persons experiencing more problems and less satisfaction with support given. The emotional reactions of the patient and the degree of involvement with the patient were both related to support problems and satisfaction. The effects of self-involvement and emotional reactions were less predictive for the immediate family than for friends and relatives. More distant, less involved support persons experienced more difficulties and less satisfaction. Contrary to expectations, the network was related to problems and satisfaction experienced. A higher number of relatives and friends in the community was associated with the perception of more support problems, particularly for younger support persons.

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TABLE OF CONTENTS

Appendix Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

A prominent area of interest in the cancer literature today is the quality of life experienced by the cancer patient. Holland (1981) has commented on the proliferation within the last few years of reports on the psychosocial aspects of this disease. The concern of professionals extends beyond the medical sphere to many other areas of the patient's life. These areas include the social, psychological, emotional, and economic ramifications of living with cancer.

The role of social support in adjustment to cancer has been a major focus of study. Many observations within clinical settings have been made which indicate certain patterns. It appears that interpersonal relationships can significantly aid the patient in adjusting to the negative effects of the disease. Social support has been identified as a source of strength for the patient in facing pain, unpleasant treatment procedures, return to a normal life, or the prospect of death. However, these relationships also appear to be seriously affected by the cancer experience. Stress takes its toll not only on the patient but on all those involved with him. Often, because of various factors, social support is inadequate, inappropriate, or completely absent, with great cost to the patient.

It is the purpose of this research to investigate the correlates of this breakdown in support, from the viewpoint of the support system members. Little systematic study has been done in this area to date, with most reports relying on anecdote and speculation. It is hoped that such an investigation will contribute both to the prediction and the prevention of social support problems in cancer.

To understand the context of this research, it may be helpful to review some statistics indicating the widespread incidence of cancer, as well as some beliefs commonly held by the public. It has been estimated that one in four Americans will develop cancer and that two out of three families will be touched by the disease (American Cancer Society, 1980). In the decade of the seventies, it was anticipated that 10 million people would be treated for cancer (Greenwald, 1980).

While people are more aware of the disease and its warning signs, misconceptions still abound (American Cancer Society, 1980; Knopf, 1976). The incidence of cancer is often underestimated by the public. At the same time, its fatality is usually overestimated. Recent figures indicate that with new treatment procedures, the disease has a cure rate of 47 percent (i.e., at least five years of survival after cessation of treatment). The figures are much worse for certain other common diseases, yet people continue to more readily associate cancer with death (Peters-Golden, 1982). Furthermore, there is confusion about the relative efficacy of treatment for specific types of cancer. For example, smokers tend to believe that the cure rate is quite high for lung cancer, which is untrue (American Cancer Society, 1980).

There is a suggestion in these data of the fear and defensiveness that surrounds cancer. In many cases, the conditions under which a person becomes a cancer patient or the member of a cancer patient's support system are not characterized by preparedness to cope with this disease.

The literature review will continue with an investigation of several areas. The impact of cancer on the patient will be covered first. Next, social support will be discussed in terms of its conceptualization and its value. Evidence for the breakdown of support in the cancer situation will be reviewed in the following section. Then, factors related to this breakdown will be discussed. Finally, an overview of this study will be presented.

The Impact of Cancer on the Patient

Cancer is a highly stressful experience which upsets the patient's normal coping processes and produces considerable distress (Meyerowitz, 1980). Patients face a variety of threats and potential changes in their lives, many of which are eventually realized. In response, they usually experience strong emotional reactions which are a further source of stress. These threats and emotional reactions will be reviewed here. This will be followed by a discussion of the adaptive tasks engendered by this stressful situation.

Areas of Stress

Threats to the patient. Cancer patients must endure the possibility of tremendous physical, psychological, social, and functional changes. Several authors have outlined the threatening experience of these patients (Holland, 1980; Krant, Doster, & Ploof, 1980; Mages & Mendelsohn, 1979; Rosillo, Welty, & Graham, 1973). Weisman (1979) found that the most frequently cited problems related to health, self-appraisal, work and finances, family and significant relationships, religion, friends and associates, and existential concerns. He identified the last as being the most important in many cases. Cohen and Lazarus (1979) listed a series of threats experienced by severely ill patients in general. These included threats to life and fears of dying, to bodily integrity and comfort, to one's self-concept and future plans, to one's emotional equilibrium, to the fulfillment of customary social roles and activities, and threats involving the need to adjust to a new physical or social environment.

Certain concerns have been emphasized more than others. The lack of control experienced by most cancer patients is a major issue (Abrams, 1966; Herzoff, 1979; Nannis, Susman, Strope, Woodruff, Hersh, Levine, & Pizzo, 1982; Trillin, 1981). Cancer is a rather unique disease in that there is little the patient or family can do to alter its course, and even treatment holds no guarantees of cure. This lack of personal control is particularly hard for the patient, especially when it is coupled with the uncertainty of the disease course (Silberfarb & Greer, 1982). The threat to autonomy and fears of becoming too dependent are also frequently concerns of the patient (Silberfarb & Greer, 1982). The patient is often forced to rely heavily on the care of others, not only because of the physical impact of the disease itself but as a result of physically taxing treatment procedures as well. It is impossible for the patient to know for how long and to what degree he or she will need the care of others. Cancer patients also may fear abandonment and isolation (Dunphy, 1977), often as a result of feelings of disfigurement and ugliness (Garner, 1977; Silberfarb & Greer, 1982). They are aware of the stigma associated with this disease and are concerned about the response of others.

Fears and anticipations of the cancer patient in many of these areas are well founded. Significant changes in the lives of patients have been documented by several authors. Greenleigh and associates (1980) reported on interviews with a large number of cancer patients regarding the social, economic, and psychological impact of the disease. Patients identified many problem areas: general tiredness or debilitation; discomfort and embarrassment with previously ordinary activities such as shopping for clothes; changes in roles at home; sexual problems; behavioral problems with children; less financial security and subsequent adverse changes in lifestyles; concerns about the effects of having cancer on employment and insurability; changes in living arrangements due to disability or financial strains; and lack of supportive services. Meyerowitz, Sparks, and Spears (1979) found similar types of difficulties among a group of breast cancer patients, including a reduction in general activity accompanied by distress, disruptions in work-related areas, and disruptions in financial, family, marital, and sexual areas. Other investigators have commented on problem areas, as well (Jamison, Wellisch, & Pasnau, 1978; Silberfarb, Maurer, & Crouthamel, 1980; Worden & Weisman, 1977).

Emotional reactions. Cancer patients undergo a variety of emotional reactions to their plight. The most frequently reported reactions include depression (Goldberg, 1981), anxiety, anger, and guilt (Crary & Crary, 1974; Meyerowitz, 1980; Silberfarb & Greer, 1982). Several investigations indicate that these reactions are experienced to varying degrees among cancer patients. Lewis, Gottesman, and Gutstein (1979) found that cancer patients undergoing surgery had high levels of anxiety and depression, which increased over time, unlike a comparison group of patients undergoing surgery for less serious illness. Achté and Vauhkonen (1971) reported tenseness, depression, and anxiety in more than half of 100 patients sampled. They also found some aggressiveness and paranoia, and a fear of death in some patients. Depression was found to be fairly prevalent among adolescent cancer patients studied by Boeck and Leventhal (1979). Finally, out of ten major psychosocial concerns expressed by callers to a cancer counselling telephone service (Rainey, 1983), anxiety associated with illness was found to be the most frequent, and depression ranked sixth.

There is some controversy as to the severity of these emotional reactions in cancer patients (Dunkel-Schetter, 1982). For example, Bukberg and Holland (1980) reported that 40 percent of their sample of random admissions to a medical oncology unit were rated as depressed, and half of these were thought to need psychiatric evaluation and treatment. In contrast, Silberfarb, Philibert, and Levine (1980) found that their sample of cancer patients was more distressed than normals but was significantly less distressed than psychiatric patients. The depression of these patients was in the non-significant range in most cases, and a lack of major psychiatric illness was found. These authors stress that this seems to be the case for most emotional reactions to cancer. Dunkel-Schetter (1982) has suggested that discrepancies in the literature regarding emotional reactions of cancer patients reflect differences among samples in disease progression and different methods of assessment. As well, she notes that differing subjective interpretations among investigators as to what reactions are worthy of note contribute to the disagreement.

There are individual differences among patients in their emotional reactions to cancer, and this must be taken into account when interpreting research findings. Sobel and Worden (1979) state that too often homogeneity is assumed in patients' reactions and coping strategies, and hence intervention is erroneously prescribed for all. These authors undertook a study using the MMPI to assess the status of cancer patients. Their findings suggest that not all patients experience adjustment difficulties, and those that do present a profile similar to neurotic patients. Similarly, Craig and Abeloff (1974) found three symptomatically distinct groups of patients. These investigators concluded that there may be patients for whom emotional factors are significant and others for whom such factors are not important. Silver and Wortman (1980) have concluded that there is no consistent response pattern to undesirable life events, including cancer, so that generalizations must be made cautiously. In response to the uncertainties surrounding patient reactions to cancer, Silberfarb (1982) has advocated the development of reliable and valid measures of psychological responses to cancer.

In summary, it is clear that the cancer patient faces a variety of stresses in many areas of his or her life. Weisman (1979) has empirically established four "vulnerability clusters" in cancer patients which capture the essence of the cancer experience. These include annihilation (hopelessness, anxiety, and a closed-time perspective), alienation (abandonment, isolation, repudiation of significant others, and worthlessness), endangerment (frustration, turmoil, and truculence), and denial, which is almost an independent factor. The patient experiences a basic existential despair characterized by depression and powerlessness.

Coping, Adaptive Tasks, and the Need for Support

Patients must utilize a number of means to try to restore their equilibrium and adjust to their situation. Sometimes these involve only themselves, but often patients rely as well on the help of others. The general coping mechanisms of patients will be presented here, followed by an elucidation of those adaptive tasks that of necessity involve other people.

Coping. Little is known about the patterns of coping that most people use, nor is it clear which patterns of coping work for certain types of persons, how they work, and the specific sets of circumstances under which they are effective (Cohen & Lazarus, 1979). People with cancer use a wide variety of coping mechanisms, but little research has been done to fully examine the psychological mechanisms and psychosocial variables that discriminate between those who cope well and those who do not (Miller, Denner, & Richardson, 1976).

Despite these limitations, it is possible to identify several types of coping that are common in the physically ill in general and the cancer patient in particular. Moos and Tsu (1977) suggest that there are seven major types of coping skills for the ill: 1) denying or minimizing the seriousness of a crisis; 2) seeking of relevant information; 3) requesting reassurance and emotional support; 4) learning specific illness-related procedures; 5) setting concrete limited goals; 6) rehearsing alternative outcomes; and 7) finding a general purpose or pattern of meaning. These are much the same as the coping patterns noted among cancer patients specifically. For example, Mages and Mendelsohn (1979) have delineated three basic coping categories for cancer patients. These include techniques to minimize distress, such as efforts to avoid, forget, control, or to detach the self from disturbing thoughts and feelings; active attempts to deal with the issues, such as seeking information about illness, taking active roles in treatment decisions, attempting to compensate for or to replace lost body parts and functions, and volunteering to help others; and turning to others, by sharing concerns, seeking support and reassurance from family and friends, making demands on others, and using illness to manipulate and coerce others. Bean, Cooper, Alpert and Kipnis (1980) noted repression, filtering of information, regression to a childlike state of dependence, transfer of decision-making power to physicians, and denial among a sample of patients receiving chemotherapy. The most common response of these patients was, "I try not to think about it". Such denial has been widely cited as the most prevalent response of the ill, particularly following diagnosis (Silberfarb & Greer, 1982), although it varies in its frequency, extent, and duration.

It is apparent from these lists that another prominent coping strategy is to enlist the help of others. An examination will follow of some of the needs identified by patients that may be fulfilled by other people.

Adaptive tasks and the need for support. There are a number of areas in which other people may help the cancer patient to adjust to his or her situation. Moos and Tsu (1977) have listed the following adaptive tasks for the ill, which require the participation of supportive others: dealing with pain and incapacitation, as well as the hospital environment and special treatment procedures; developing adequate relationships with professional staff; preserving a reasonable emotional balance; preserving a satisfactory self-image; preserving relationships with family and friends, and preparing for an uncertain future. Other needs are for care of physical discomfort, for an emotional climate of warmth and cheer, for expression of feelings, and for emotional support (Cobb, 1956), as well as the maintenance of hope (Dubrey & Terrill, 1975), and the need to deal with death issues, for terminal patients in particular (Linn, Linn, & Harris, 1982). Young-Brockopp (1982) has identified the need for hope, honesty, information, emotional expression and discussion of death issues as being the most often cited psychosocial needs of cancer patients. She found that the first three, in particular, were of importance to her sample, with some variation on the last two.

Underlying these areas is a primary need for communication, which has been emphasized by many authors (e.g., Dunkel-Schetter, 1982; Mitchell & Glicksman, 1977; Wortman & Dunkel-Schetter, 1979). Cancer patients, to varying degrees, seem to need and want accurate information about their situation (Greenleigh et al., 1980; McIntosh, 1977; Morris, Greer, & White, 1977), as well as the opportunity to talk about their feelings and experiences. For example, Mitchell and Glicksman reported that 86 percent of their sample of patients undergoing radiotherapy wished that they could discuss their situation more fully with someone. Silver and Wortman (1980) have suggested that expressing feelings enables the person to receive information about the appropriateness of those feelings, facilitates active problem-solving, allows catharsis, and may give the person a more meaningful perspective on the problem. While some research has indicated variability among patients in their desire to express feelings (e.g., Young-Brockopp, 1982) and a questionable relationship between ventilation and certain outcome measures (Dunkel-Schetter, 1982), there is sufficient evidence that such communication is an important aspect of adjustment for many patients (Cobliner, 1977; Herzoff, 1979; Kaplan, Grobstein, & Smith, 1976; Maisiak, Cain, Yarbro, & Josof, 1981; Spinetta & Maloney, 1978).

It is apparent that the cancer patient undergoes fundamental, stressful changes in his life to which he cannot easily adjust on his own. The literature seems to suggest that the help of other people in the patient's life, or social support, is a necessary part of adjustment for most patients. Social support and its value will be discussed further in the next section.

Social Support

The Social Support Construct

Social support has been defined in several ways, all of which convey the sense of a social interaction that has practical, psychological, and emotional benefits for the recipient. Lin, Ensel, Simeone, and Kuo (1979) have defined it as that support which is accessible to an individual through social ties to other individuals, groups, and the larger community. It has also been defined as information leading a person to believe that he or she is cared for and loved, esteemed and valued, and that he or she belongs to a network of communication and mutual obligation (Cobb, 1976). Kaplan, Cassel, and Gore (1977) have suggested that social support is the degree to which a person's basic social needs are gratified through interaction with others. These needs include affection, esteem or approval, belonging, identity, and security. Caplan (1974) has emphasized that support is not the propping up of someone who is in danger of falling but rather the augmenting of a person's strengths to facilitate his or her mastery of the environment. The support system involves a pattern of continuous or intermittent ties that help to maintain the psychological and physical integrity of the recipient over time.

From these definitions, it is apparent that social support is a multidimensional construct involving many possible levels of analysis. It is not just a single measurable entity but a construct made up of various social and psychological variables (Henderson, 1977). It has frequently been studied in terms of quantity, that is, the amounts of support available to the recipient. However, there are other aspects that must be considered as well, some of them being even more important than amount in understanding the nature of such support. Various dimensions of support will be reviewed below.

Before proceeding with the review, however, it is important to note that there is still considerable debate about the social support construct. Despite agreements about the importance of this concept, there is little consensus as to its conceptualization and measurement (Dean & Lin, 1977; DiMatteo & Hays, 1981; Eckenrode & Gore, 19[illegible] Gottlieb, 1981). Specific conceptual and operational definitions show notable variation, leading to difficulties in comparability of studies and their results. Kaplan et al. (1977) state that "attempts at conceptualization and measurement have been inadequate, discipline-bound (or study-bound), and unusually formulated for post-hoc interpretation of unexpected, but striking findings" (p. 47). Thoits (1982) notes that those indicators of social support that have been used in research largely have not been subject to any tests of reliability and validity. Thus, current research on the effects of social support must be interpreted with care. Hopefully, further research efforts will promote clarification of the concept and its measurement. Some of the areas that need to be more systematically considered in this regard will now be discussed.

Sources of support. Social support emanates from a number of different individuals in the person's social environment. Thoits (1982) has defined the support system as "that subset of persons in the individual's total social network upon whom he or she relies" for various types of aid (p. 148). This may include family, friends, coworkers, ministers, counselors, and medical personnel. As well, peer groups may supply needed support in areas where others cannot (DiMatteo & Hays, 1981; Wortman & Dunkel-Schetter, 1979).

Structural characteristics of the support system. These characteristics include size, strength of ties (including the degree of intimacy and reciprocity between members), density (the extent to which members are involved with one another independently of the target individual), homogeneity of membership (the extent to which members share common psychosocial or cultural attributes), and dispersion of membership (the ease with which members can make face-to-face contact) (Walker, MacBride, & Vachon, 1977). These characteristics create particular patterns of "social interdependence" which, in turn, affect the quality, diversity, and reliability of support (Gottlieb, 1981).

The effect of such characteristics on support is not clear. Studies have yielded differing results when various aspects of this dimension are examined in relation to the benefits of support. Certain investigations of density, for example, point to such contradictions. Better adjustment in terms of mental health was found to be associated with less dense networks for divorced people

(Wilcox, 1981) and for women undergoing recent critical life changes (Hirsch, 1980). In another study, Hirsch (1979) found that higher density was associated with greater quantities of support but with less satisfactory emotional support in college students during exams. Walker et al. (1977) have suggested that a dense network can entrap a person in a limited set of normative expectations, information, and social contacts, thus limiting his or her chances to adjust to a new situation following a crisis event, even at the same time that the network is providing seemingly a great deal of support. These authors also suggest that different types of networks may be helpful at different points in a crisis and maladaptive at others, thus underlining the need to take into account the characteristics of a particular network in relation to the recipient's needs at a given time.

Dunkel-Schetter (1982) examined various structural aspects of support and their relation to outcome in cancer patients. Her findings were also contradictory. In general, quantity of support was not associated with outcome variables; however, there were a few interesting relationships. The more support patients had available in the form of social relationships and opportunities to interact with others, the higher was their self-esteem. Yet, at the same time, an increase in the quantity of one's social relationships and opportunity for social interaction was significantly associated with more stress and more difficulty in adjustment.

These varied results emphasize the complexity of support and the necessity of examining all of its aspects in order to accurately interpret its effects. The notion of the quality or types of support offered to the person is clearly an important addition to examination of structural aspects of the support system. These will be covered in the next section.

Types of support. This area might well be called "types of psychosocial needs", as well, since the kinds of support delineated by various authors have essentially paralleled these perceived needs. Types of support have been described somewhat differently by different investigators, although most follow the same basic dimensions. Kaplan et al. (1977) believe there are two basic types of support, including socioemotional aid (e.g., affection, sympathy and understanding, acceptance, and esteem from significant others) and instrumental aid (e.g., advice, information, help with family or work responsibilities, and financial aid). Caplan (1979) has also described types of support along two dimensions, the objective-subjective and the tangible-psychological. The first dimension includes the concept of perception of support by outside observers and the recipient. The second refers to the provision of instrumental aid benefiting the person's physical needs, and cognitive aid (values, attitudes, beliefs, and perceptions), which induces affective states that will promote well-being.

Surveying other schemes, there are generally four types of support that are identified. One is emotional support, which includes the expression of positive affect and the information that one is cared for and loved, or esteemed and respected (Cobb, 1976). This category also includes encouragement to express feelings and beliefs (Caplan, 1974; Wortman & Dunkel-Schetter, 1979), and support in handling emotional crises. A second category is the provision of material aid and services. A third is the communication of expectations, norms, values, or a shared world view. This includes the notion of feedback (Tolsdorf, 1976) about one's social identity (Walker et al., 1977) and the appropriateness of beliefs and feelings. Finally, social support can come through the knowledge that a person is embedded in a network of mutual support and obligation (Walker et al., 1977).

A particularly useful schema is that of LaGaipa (1981), which is based in part on the resource theory of Safilios-Rothschild (1970, 1976). It employs more concise terminology in describing various categories along this need/resource continuum. According to this model, psychosocial goals, needs, and resources (or types of support) can be classified in the following way:

1. Identity: search for self-confirmation; self-evaluation (beliefs about self-worth) and self-definition (maintenance and validation of identity).
2. Affective: affection, love; loving and being loved; feeling needed and needing the other.
3. Expressive: understanding, emotional support and intimate disclosure.

4. Sociability: companionship, conversation, leisure, common interests.

5. Instrumental aid: psychological, economic, and material services.

LaGaipa stresses that in order to understand the functioning of a support system along these dimensions, several other systems parameters must be taken into account. These include interdependence of the resource dimensions, conflicts within and among dimensions, task characteristics, and system capacity (i.e., the potential for overload in attempting to provide support). Some of these notions will be quite useful in attempting to specify the difficulties of the support system in meeting patients' needs.

Types of support have been found to relate more consistently to outcome measures than have any of the other dimensions discussed. Caplan (1974) has stated that the most important factor affecting outcomes in psychosocial crises is the quality of emotional support and task-oriented assistance provided. Furthermore, different types of behavior can have different effects on outcome, even though all are considered to be supportive. In a study of support systems and coping with major life changes, Hirsch (1980) found that cognitive guidance was significantly associated with symptom and mood, while socializing was significantly associated with self-esteem. Another study examining the relationship between support and short-term recovery from breast cancer (Funch & Mettlin, 1982) found that "social" and "professional" support were related positively to psychological adjustment, and "financial" support was related to physical recovery. Unfortunately, the terminology utilized is somewhat confusing, but the authors seem to be referring to various behaviors that fall under the social support heading.

Quality of support has been found to be associated with support effectiveness in a number of studies. For example, Dunkel-Schetter (1982) found that quality of support (of which type was a partial measure) was positively related to adjustment. Specifically, satisfaction with support, in terms of whether certain types of support were being sufficiently provided, contributed to a sense of less stress and less trouble in adjustment. Notably, this is opposite to the effect of quantity of support in this study. Similarly, Porritt (1979) found that quality of social support (empathic understanding, respect, and constructive genuineness) was related to outcome (emotional distress, work adjustment, life enjoyment, and health deterioration). The availability of social support sources was not related to outcome in this study.

It is evident that there are many types of social support and that this dimension of support has significant implications for outcome. Thoits (1982) has noted that not all sources or types of support are equally effective in reducing distress. It appears that emotional support in particular has implications for health and adjustment to disease (LaRocco, House, & French, 1980). The discussion will now turn to a review of some of the literature regarding the positive effects of social support on various life problems, especially those related to health and cancer.

The Value of Social Support

General population. There is a growing consensus among investigators that social support plays a role in protecting individuals from the adverse effects of significant life events and stress, both physically and psychologically. There is also some evidence that inadequacies in the support system or the absence of support (e.g., social isolation or social marginality) may lead to increased stress (Cassel, 1976; Henderson, 1977; Pilisuk & Froland, 1978; Rabkin & Struening, 1976).

Social support has been investigated in relation to several types of negative life events and has been found to have benefits in many studies. Some of the areas explored have included bereavement (Clayton, Halikas, & Maurice, 1972; Pilisuk & Froland, 1978), unemployment (Gore, 1978), psychiatric disorders (Caplan, 1974; Hirsch, 1979; Lin et al., 1979; Tolsdorf, 1976), alcoholism (Bromet & Moos, 1977), adolescent pregnancy (Barrera, 1981), marital disruption (Wilcox, 1981), and depression (Wetzel & Redmond, 1980).

Support has also been extensively investigated with regard to various health problems. The positive relation of support to adjustment at various stages of illness has been reported. DiMatteo and Hays (1981) have noted that social support plays a significant role in lessening the effects of severe illness, affecting both recovery and coping. Some of the health areas covered have been hemodialysis (Dimond, 1979), terminal illness (Carey, 1974), physical disabilities (Litman, 1966), stroke (Lesser & Watt, 1978), myocardial infarction (Finlayson, 1976), and burns (Davidson, Bowden, & Tholen, 1979).

There has been much speculation as to how social support works in life crises to aid in adjustment and recovery. Many investigators adhere to the notion of a "buffering" effect of support (Caplan, 1974; Cassel, 1976; Cobb, 1976). However, evidence for more direct effects of social support has also been presented (e.g., Andrews, Tennant, Hewson, & Vaillant, 1978; Aneshensel & Stone, 1982). Interpretations of process are complicated by methodological limitations which prohibit the attribution of causality. Often, it is not clear whether social support actually aids in adjustment, or whether poorly adjusted people simply cannot perceive or maintain supportive relationships. Several investigators have commented on this issue (Barrera, 1981; Holahan & Moos, 1982; Silver & Wortman, 1980). Heller (1979) has introduced the notion of "social competence" as an alternative explanation to some of the buffering interpretations. This notion suggests that deficits in social competence lead to poorer adjustment for unsupported people, as well as explaining the low levels of support they receive.

Another methodological limitation which hampers understanding of the support process is that the changeability of support systems is often not taken into account. It is important to consider that social networks are constantly in flux as a result of various events, both internal and external. Thus, there is value in studying a support system over time in order to understand its functioning (Wilcox, 1981). However, longitudinal studies are frequently impossible. Thoits (1982) has also commented on the problems in interpretation of the buffering research when this notion of changeability is ignored.

While buffering studies focus on social support and its relation to a person's reactions to life events, it is often forgotten that those same life events can have a tremendous impact on the support system itself. Thus, stressful reactions may be a result of support changes rather than the event directly. Thoits emphasizes the necessity of viewing social support as a dynamic variable that may be a product of, and sometimes identical with, certain types of life events.

Despite such limitations, however, the bulk of the evidence indicates that social support can have a beneficial effect in a number of situations. Cancer is one of these. The discussion will now turn to a consideration of the positive effects of social support for the cancer patient.

Cancer population. Various studies have indicated that social support aids in coping and adjustment for the cancer patient. Several investigations have focused on mastectomy patients (Bloom, 1979b; Jamison et al., 1978). Bloom (1982) found a significant relationship between social support (perception of family cohesiveness and amount of social contact) and coping and adjustment (psychological distress, self-concept, and sense of power). Holding certain influential variables constant (marital status, age, socioeconomic status, and life change), she found a direct effect of support on coping and indirect effects of support on the three measures of adjustment.

The effects of social support for terminal patients have also been explored. Weisman and Worden (1975), using information from psychological autopsies of cancer deaths, correlated survival (measured in months beyond expected survival) with psychosocial data. Patients who lived longer tended to maintain satisfactory relationships, especially toward the end. Those who experienced many negative emotions and had a history of poor relationships died more quickly than anticipated. In another study, cancer patients who were near death were interviewed (Weidman Gibbs & Achterberg-Lawlis, 1978). Low conscious fear and low pain were associated with strong family support and religious beliefs.

Several studies have examined the effects of support groups on cancer patients (e.g., Bloom, 1979a). Linn et al. (1982) evaluated the effects of counseling on terminal cancer patients. Patients were assessed before random assignment to a therapy or control group, and then again at intervals of 1, 3, 6, 9, and 12 months. Patients in the experimental groups improved significantly more on quality of life measures within three months, although no functional differences with controls were observed. Another study measuring the effects of psychosocial intervention with cancer patients (Gordon, Freidenbergs, Diller, Hibbard, Wolf, Levine, Lipkins, Ezrachi, & Lucido, 1980) found significant differences between the experimental group and controls. Intervention effectively ameliorated certain psychosocial problems of patients; furthermore, patients in the intervention group experienced a more rapid decline of negative affect, a more realistic outlook on life, a greater proportion of return to work, and a more active life than controls.

Thus, there is considerable evidence indicating that social support can be of help in adjusting to a number of adverse life circumstances, including cancer. However, it is also important to examine the negative aspects of support (Barrera, 1981; Cobb, 1976; Heller, 1979; Silver & Wortman, 1980). Wellman (1981) argues that social ties are multifaceted and often contradictory in nature, and that they are not supportive at all times. Indeed, a number of studies have indicated that "support" is not always helpful and that it may even be detrimental (e.g., Revenson, Wollman, & Felton, 1983; Wilcox, 1981).

This is certainly true for the cancer patient. Evidence points to frequent problems with support for these patients that have seriously detrimental effects on adjustment. Dunkel-Schetter (1982) notes two ways in which the social environment hinders rather than helps the patient: 1) by failing to provide support of a certain type when it is needed; and 2) by making unsuccessful or hurtful attempts to give support. The discussion will now turn to a review of the literature citing such problems. This will be followed by an examination of the variables that may contribute to the difficulties the support person faces in providing support.

Support Problems of Cancer Patients

Cancer patients seem to experience many interpersonal problems with the people on whom they rely most for support (Wortman & Dunkel-Schetter, 1979). Professionals, friends, and family appear to find interaction with the patient difficult, and as a result they often do not meet the support needs of the patient. Problems in support may be evidenced by inappropriate behaviors or the complete withdrawal of help. One patient is described (Himmelsbach, in Blumberg, Flaherty,

&.Lewis, 1980) who:

> ...rather dreaded going home because she expected the stream of visitors to be fatiguing. When she returned to the hospital several weeks later, she remarked quietly that 'there were few visitors, many flowers and half-hearted telephone calls'. (p. 21)

While little systematic exploration of these problems has been done, the literature contains much anecdotal evidence suggesting that the support difficulties of cancer patients are quite widespread. Several personal accounts can be found (Fisher, 1981; Trillin, 1981), such as the wife of a deceased patient who summed up her family's experience of support as, "...Man's inhumanity to man is worse than cancer..." (Weisman, 1979). A New York Times article which chronicled the experiences of cancer patients throughout the United States poignantly illustrated the problems of these "new lepers", who are rejected, overprotected, and misunderstood by those from whom they seek support (Severo, 1977).

Other articles have indicated that problems exist between professionals and patients (Abrams, 1966; Artiss & Levine, 1973; Cobb, 1956; Yarbro, 1981), between families and patients (Dyk & Sutherland, 1956; Greenleigh et al., 1980; Kaplan, Grobstein, & Smith, 1976; Meyerowitz, Sparks, & Spears, 1979), and in patients' social activity (Silberfarb, Maurer, & Crouthamel, 1980; Sutherland, Orbach, Dyk, & Bard, 1952). In a more systematic study, Peters-Golden (1982) reported that the majority of breast cancer patients sampled felt misunderstood, over half said they were avoided, and a third had feelings of having no one to whom they could turn. Another study showed that 28 percent of the patients sampled felt their spouse or significant other did not understand their feelings about the cancer (Dunkel-Schetter, 1982). Other findings in this study indicated that a fifth of the patients evidenced signs of unfavorable family reactions, and a fourth could be classified as having only weak support available. Finally, Rainey (1983) has reported that communication and relationship issues are a primary source of concern among cancer patients and support persons utilizing a telephone hotline service.

Unfortunately, most of the literature in this area to date is not very systematic or extensive. Even less work is available concerning the reasons underlying social support problems of cancer patients. A few investigators have made suggestions, but there has been little conceptualization or exploration of how support breaks down. An exception to this has been the theoretical work of Wortman and her colleagues (Coates & Wortman, 1980; Silver & Wortman, 1980; Wortman & Dunkel-Schetter, 1979), from whom the following discussion will draw heavily. This will be an attempt to delineate those variables which might influence the support process, including constraints on the support person and contextual factors that may interact with the constraints.

Variables Influencing Support

There are a number of variables that may be said to influence the delivery of support to the cancer patient. Some of these are constraints that operate on the support person, making it difficult for him or her to act in a supportive manner. Other variables may in turn interact with the constraints, further altering the nature of of the support given, in a positive or a negative direction.

Constraining Variables

There are several factors which may contribute to inadequate or absent support. These can be grouped within four basic dimensions: affective constraints, cognitive constraints, behavioral constraints, and normative constraints.

Affective constraints. The first of these involves feelings about cancer. Unlike many other life-threatening diseases, cancer evokes a host of negative emotions. Most of these have to do with the very nature of the disease itself, including both its physical and psychological effects. Cancer is feared because it is seemingly inexplicable and uncontrollable (Rosser & Maguire, 1982), dirty and complicated in its course (Bard, 1972), and synonymous with impending death (Yarbro, 1981). Even professionals do not seem to be exempt from these negative feelings (Barckley, 1967; McFate, 1979; Weisman, 1979; Yarbro, 1981). Cancer can be a devastating disease, accompanied by severe pain, disfigurement, and dissolution of the body. The prospect of such a disease course carries with it the psychological implications of worthlessness, shame, burdensomeness and resultant feelings of helplessness, anger, futility, and depression (Krant, 1972). The perception of cancer is "one of evil horror, of a force that invades, corrodes, corrupts, fouls and devastates good and warm human beings..." (Krant, 1981, p. 16).

These feelings are often transferred to the patient, with resultant stigmatization, derogation, and devaluation of the individual

(Krant, 1981; Wortman & Dunkel-Schetter, 1979). The stigma associated with cancer is likely to result in feedback from others that is inconsistent, confusing, and ultimately destructive, more than would be the case for victims of other misfortunes (Wortman & Dunkel-Schetter, 1979). For example, families and friends of patients often respond with physical distancing and isolation of the patient, because of an irrational fear of contagion (Abrams & Finesinger, 1953; Dyk & Sutherland, 1956; Krant, 1981; Peters-Golden, 1982).

Ironically, the prospect of becoming stigmatized and ostracized if one becomes a cancer patient has contributed even further to cancerophobia (Peters-Golden, 1982). In the Peters-Golden study, healthy subjects reported assignment of stigma and avoidance behavior directed towards cancer patients. These respondents felt they would be reluctant to tell anyone if they had the disease, because of the shame associated with it. However, they also believed that they would receive ample amounts of support, apparently denying the stigmatization process in others.

A second type of affective constraint involves vulnerability arousal or identification. Any identification with the patient that makes another person feel vulnerable to a similar fate is uncomfortable and may result in avoidance of the patient (Silver & Wortman, 1979). This type of reaction occurs in both professionals and laymen. Nurses have been found to have trouble interacting with mastectomy patients because they cannot protect themselves from the thought that "this could happen to me, too" (Quint, 1965). Practicing counselors as well may have trouble with cancer patients.

In one study, counselors were less likely to want to deliver counseling or services to cancer patients than to other patients with equally serious diseases. The investigators attributed this, in part, to fear of cancer and a projected similarity to the cancer patients (Pinkerton & McAleer, 1976). Unfortunately, it is not clear how this conclusion was made. Identification has also been found to be a problem for doctors (Artiss & Levine, 1973).

Other people in the support system have problems with vulnerability arousal, as well. Several authors (Giacquinta, 1977; Rosenbaum, Rosenbaum, Sweet, & Mohr, 1981) have commented on the feelings of vulnerability experienced by family members as they confront the possibility of death in a loved one. Peters-Golden (1982) found that healthy individuals cited their vulnerability to the same fate as a major reason for avoiding cancer patients. This was particularly true if they had been close to the patient and had previously formed bonds of identification.

A third constraint on supportive behavior is that of mood induction. The support person may anticipate that being with the patient will create in himself moods similar to the patient's, such as depression, hopelessness, or anger. Support persons are prone to such empathic and sympathetic responses to someone about whom they are concerned (Wortman & Dunkel-Schetter, 1979). Being with the patient may increase their already unpleasant internal experience.

Evidence that such a process may occur is available in the literature on depression. Coates and Wortman (1980) comment that association with a depressed person may be a particularly noxious experience. Normal subjects conversing on the telephone with a depressed person have been found to be significantly more depressed, anxious, hostile, and rejecting afterward than subjects who talk to nondepressed patients or normal controls (Coyne, 1976). Such an impact on the support person involved with a cancer patient may be multiplied, since that patient experiences not only depression but a whole host of painful emotions. The support person may not be able to defend against the experience of such emotions in himself when faced with the patient's pain.

Stress on members of the support system is another constraining factor. Professionals and family members experience considerable stress in dealing with the cancer patient. Presumably, friends do as well, depending on their degree of closeness to the patient, although there is relatively little data on this.

Among professionals and staff working with cancer patients, the daily situation of illness, treatment, and death is psychologically wearing. Curative attempts are often themselves painful or disfiguring, and they frequently fail altogether. Staff frequently experience their own helplessness and depression. This may lead to burnout, or "caregiver's plight" (Weisman, 1981), which results when staff become even more distressed by cancer than the patients are. Impairment in self-esteem, vocational demoralization, or a change of fields may ensue. Staff working with advanced cancer patients in palliative care units seem to be particularly susceptible to stress. In one study, staff in a newly opened palliative care unit were found to experience only slightly less stress than a group of new widows (Vachon, Lyall, & Freeman, 1978). The problem is underlined by the proliferation of staff support groups on oncology and palliative care units (Quenneville, Falardeau, & Rochette, 1981-82; Tull, Glicksman, Hilderley, & Tefft, 1981).

The family of the cancer patient experiences stress through threats to its equilibrium, role conflicts, overload, and guilt. That the diagnosis and treatment of cancer threaten to disrupt the family system has been widely noted (Cohen & Wellisch, 1978; Giacquinta, 1977). Changes occur in the structure of relationships, norms, and rules for interpersonal behavior (Cassileth & Hamilton, 1979), and these threaten to persist well beyond the crisis stage. Families face the possible loss of an important member, or at least a significant alteration in his or her contribution to the family. Such changes are not easy:

> ...Donald was the dominant head of his family when he began cancer treatment. His wife, Jane, had always depended on his decisiveness and deferred to his preferences. Their 14-year-old son was a quiet, studious boy. During Donald's protracted treatment, he became progressively irritable, withdrawn, preoccupied, and ultimately dependent on his wife. Jane was faced with the choice of asserting herself and assuming much more independence or of finding someone else to depend on. Unfortunately, she was unwilling to experience the anxiety and uncertainty of a new role and began turning helplessly to her son. He tried to take his dad's place by supporting his emotionally distraught mother but became depressed and began getting into trouble at school. Donald and Jane grew more depressed and finally sought professional counseling. (Cantor, in Blumberg et al., 1980, p. 79)

In addition, establishing new role complementarity is made more difficult by the fact that families and patients may respond with differing perceptions and needs to the changes in their lives (Grobe, Ahmann, & Ilstrup, 1982; Krant, 1981).

Stress may also arise from having to deal with daily concerns of the patient. An exploratory study of family coping during cancer identified some specific family problems and needs (Welch, 1981). Various factors served to increase family anxiety and stress, including a fear of the unknown, what to expect from treatment, the occurrence of side effects and pain, as well as coping with the patient's eating impairments, altered sleep patterns, and depressions. A common problem was the fear of going out and leaving the patient alone. Families experienced various reactions to these stressors, including psychosomatic symptoms. Most felt the need for support for themselves. This need for support is common among families of cancer patients, particularly those who have children with cancer (Binger, Ablin, Feuerstein, Kushner, Zoger, & Mikkelson, 1969; Morrow & Morse, 1979).

Prolonged stress may be a reason for eventual withdrawal of support. Recovered cancer patients have noted a decrease of the intensive support that they experienced at the beginning of their illness (Maher, 1982). The support system can, over time, exhaust its ability to give support. Wortman and Dunkel-Schetter (1979) have commented on the emotional drain experienced by support persons trying to keep pace with fluctuations in the patient's physical condition, mood, and coping strategies. Physical exhaustion and frustration at seemingly useless supportive efforts are also common. A primary problem is the neglect of the support person's own needs, interests, and problems that ensues from involvement with the patient

(Wortman & Dunkel-Schetter, 1979). When the family becomes necessarily caught up in the illness process, with frequent hospital visits and concern over the patient, even their extended social network is disrupted. Needed support from friends and other family may be lost (Cassileth & Hamilton, 1979).

Finally, the common experience of guilt may wear away at support persons. There are many sources of guilt in the cancer experience. Parents of children with cancer may somehow feel responsible for their child's disease (Bozeman, Orbach, & Sutherland, 1955). Guilt may also follow the natural reaction of relief that someone else contracted the disease--"Thank God it wasn't me". Guilt in this case may be seen as self-chastisement and a defense against feelings of selfishness (Yarbro, 1981). Feelings of resentment and fatigue with having to provide continual support may also be followed by guilt. Thus, a "vicious circle" may begin, with the support person attempting to rectify his or her resentful feelings by giving even more to the patient, and becoming more exhausted, frustrated, resentful, and guilty in the process (Nelson, 1972; Worman & Dunkel-Schetter, 1979).

Stresses on members of the support system may, in some ways, be equally as great as those that the patient experiences. This has serious implications for support. The support person has a considerable amount of "psychological work" to do simply to maintain his own stability. Thus, many of the resources that might otherwise be directed at helping the patient are reserved for the support person himself.

Cognitive constraints. One type of constraint on effective support is that of beliefs about appropriate behavior for both the support person and the patient. Support persons commonly have erroneous beliefs as to how to act around the patient and as to how the patient should act (Peters-Golden, 1982; Wortman & Dunkel-Schetter, 1979).

Wortman and her colleagues (Coates & Wortman, 1980; Silver & Wortman, 1980; Wortman & Dunkel-Schetter, 1979) note that support persons tend to believe that the best approach to the patient, or any victim of misfortune, is to be positive and optimistic, regardless of the situation. Efforts are made to cheer the patient, to exhort him or her to be strong, and to help him or her "move along", leaving behind the negative aspects of the experience. Peters-Golden (1982) found that to the healthy people interviewed in her study, one of the most important features of the "disease-free role" was to act as an "encourager" to patients. Indeed, 66 percent of the healthy people in her sample said that they would go out of their way to cheer up a cancer patient.

Unfortunately, such behavior frequently may be contrary to the patient's actual needs for dealing with the negative aspects of his or her experience. Weisman (1979) has suggested that false reassurances, exhortations about courage, sermons about strength, and deceptions about the future do not instill hope in the patient, but rather undermine trust and ruin the patient's quality of life.

As an adjunct to this belief, support persons may place great importance on the concealment of negative feelings, both their own and the patient's (Dunkel-Schetter, 1982; Wortman & Dunkel-Schetter, 1979). Support persons may feel that expression of their own distress will be detrimental to the patient, only enhancing his or her problems. At the same time, the patient's expression of negative emotions may be seen as an indication of poor adjustment (Coates, Wortman, & Abbey, 1979; Dunkel-Schetter, 1982; Peters-Golden, 1982; Wortman & Dunkel-Schetter, 1979).

The result of these beliefs is that open communication and the ventilation of feelings are suppressed. For example, Jamison et al. (1978) reported that the amount of time spent talking about emotional aspects of mastectomy with either the spouse or significant other was rated as "little or none" by 89 percent of the patients in their sample prior to surgery. Fifty percent reported that such discussions did not take place even after going home. Discussion for these patients did not occur at times of maximal emotional stress. Other articles have also indicated that communication is avoided (e.g., Bard, 1952; Mitchell & Glicksman, 1977) and the expression of feeling suppressed (Binger et al., 1969; Dyk & Sutherland, 1956; Quint, 1965). There is some evidence that this is detrimental to the patient (see Dunkel-Schetter, 1982, for a review).

Another result of emphasis on the positive and suppression of the negative is a discrepancy between verbal and nonverbal behavior toward the patient (Wortman & Dunkel-Schetter, 1979). Support persons are less able to control non-verbal expressions of affect, with the result that patients perceive their negative feelings despite verbal messages to the contrary. An example might be the refusal to touch the patient (out of feelings of revulsion) at the same time that the patient's value and worth is being affirmed. Some patients have reported a lack of authenticity in the supportive behaviors of others, such as nongenuine support, false empathy, false reassurance and false solutions (Dunkel-Schetter, 1982). This type of behavior creates confusion, guilt, resentment, and uncertainty in the patient.

Another belief is that of the need to "protect" or "baby" the patient because of his presumed incapacity. While this is often necessary, particularly at certain times in the disease course, it sometimes results in "overprotection". Overprotective behaviors have been found to be a major complaint of some patients (Herzoff, 1979). Such behavior has been noted in children of colostomy patients (Dyk & Sutherland, 1956) and has been reproted by mastectomy patients (Peters-Golden, 1982). Seventy-six percent of the healthy population in the Peters-Golden study said that they would expect less of cancer patients.

There are several possible detrimental effects of such beliefs and behaviors. Silver and Wortman (1980) suggest that such "protection" or "help" may in fact threaten the person's freedom to make his own decisions. Most cancer patients need eventually to restore some normalcy and autonomy to their lives, which may be prevented by overly solicitous behaviors. Efforts to take care of the patient may also interfere with the patient's development of coping mechanisms and may lead to passivity and dependency (Silver & Wortman, 1980).

Another belief related to protection of the patient is that of information control. Whether to tell the patient the facts about his diagnosis and prognosis has long been a controversial subject within the medical profession (e.g., Greenwald & Nevitt, 1982; McIntosh, 1974; Oken, 1961). Families as well have concerns about how much to tell the patient, wishing to protect the patient from more suffering (Rosenbaum et al., 1981; Weisman, 1979). Trachtenberg (1972) notes that there seems to be a fear within the support system that if the patient is told the facts about his or her condition, he or she will not be able to handle it and will create further difficulties for everyone involved.

Most studies about patient preferences for information indicate that the majority of patients wish to know at least the basics about their disease. There are, of course, individual differences among patients. Weisman (1979) reports that among newly-diagnosed patients, most want to know the "truth"; only about 10 percent are guarded about the facts of their illness. In another study (Cassileth, Zupkis, Sutton-Smith, & March, 1980), the majority of the 256 patients interviewed preferred to be informed and actively involved in their treatment. There was some difference with age; younger patients were more likely to want information. Overall, however, most in each age group preferred to know about their illness. Bean et al. (1980) found slightly more variation among their sample, with some patients preferring to know everything, some wanting only positive information, and some wanting to hear nothing. Thus, while it appears that there is a need for individual assessment in each case, many patients want and can benefit from information.

It has been suggested that the withholding of information may have a detrimental effect on both the patient and the support system in many instances. It impairs communication (Crary & Crary, 1974; Knight & Field, 1981) and makes the patient feel isolated, abandoned, and stigmatized (Holland, 1980; Trachtenberg, 1972; Weisman, 1979). Glaser and Strauss (1964) have described the elaborate system of deception that must be built up to prevent prognostic information from reaching the terminal patient. They stress that this has negative consequences for all involved, since no one is allowed to work through death issues. Erickson and Hyerstay (1974) have described a similar process in terms of the "double-bind hypothesis". They suggest that significant others, in an attempt to cover up the patient's situation, emit incongruent verbal and nonverbal messages. These attempts are misguided, since most patients have an idea of what is happening to them and want to know more. As well, the ruse is almost impossible to maintain, since the nonverbal behaviors often give away the secret. These authors draw parallels with the confused messages that lead to the schizophrenic experience, suggesting that there are potential destructive psychological effects of such duplicity with the cancer patient.

Another set of cognitive constraints involves the attribution of responsibility. This includes both the assessment of the patient's responsibility for his situation and the support person's responsibility for providing support. To a large extent, these notions have not been explored in terms of the cancer situation per se. Most of the information regarding this process is to be found in the literature on victims and on helping in general, although Wortman and Dunkel-Schetter (1979) have been instrumental in relating some of the material to cancer.

According to Bar-Tal (1976), the decision to give help to someone rests in part on a judgment of why the person is in trouble. Whether the potential helper perceives that the needy person is asking for help because of factors beyond his or her control (external locus of dependency) or because of his or her own shortcomings (internal locus of dependency) greatly affects altruistic behavior (e.g., Berkowitz, 1969). People are more likely to help in externally caused situations. This may be because the victim who is responsible for his or her own fate is seen to be improperly imposing a request on the helper that is less than legitimate (Berkowitz, 1973), or because such victims do not sufficiently arouse norms of social responsibility (Schopler & Matthews, 1965).

This notion has important implications for the cancer patient. It would be expected that the patient's plight would be seen as externally caused and therefore worthy of attention. However, Wortman and her colleagues (Silver & Wortman, 1980; Wortman & Dunkel-Schetter, 1979) have indicated that victims, including cancer patients, are sometimes seen as being the cause of their own problems. Negative attributions are made largely to explain the misfortune of the victim, which misfortune otherwise would threaten the observer's need to believe in a "just world" (Lerner & Simmons, 1966; Lerner, 1971). The observer thereby protects him or herself from the thought that the same random misfortune could happen to him or her. Observers may also make negative attributions on the basis of biased information (Coates & Wortman, 1980), overlooking situational determinants and focusing on the victim's role in the misfortune. For example, a support person may be reluctant to continue giving support to a depressed cancer patient who should be "snapping out of it"; however, he or she may erroneously be assuming that the patient has the power to do so, without considering the very real losses the patient has experienced.

Helping behavior is also determined in part by the helper's assessment of personal responsibility in the situation (Bar-Tal, 1976; Darley & Latane, 1970; Gross & McMullen, 1982). While most of the work in this area has focused on the response of strangers in temporary help situations, there may be some applicability to the support person in the cancer situation as well. Schwartz and Howard (1982) have proposed that personal norms operate in the assessment of responsibility. The potential helper asks him or herself whether he or she is morally responsible for actions in a particular situation, based on internalized values, and thereby constructs a personal norm for the actions. When the helper is faced with a situation where there is conflict over whether or not to help, he or she may seek to ease the decision process by redefining the situation and thus weakening his or her sense of moral obligation. Perceptions and interpretations are redefined, because this is more feasible than redefining physical and social outcomes of action. This occurs through a process of denial; the helper may attempt to deny the need for help, or that any effective action can be done, or that he or she has the personal ability to carry out that action. If the helper cannot deny any of these perceptions, then the responsibility to conform with normative obligations will be denied. The norms invoked earlier become inapplicable to the helper. Again, there are no data relating this decision process to the cancer situation; however, given the aversiveness for the support person of various aspects of the cancer experience, it is possible that support persons review their responsibility in this way.

Another possible cognitive constraint on supportive behavior involves the principle of exchange in interpersonal relationships. Several different theoretical approaches have been taken with regard to this notion (see LaGaipa, 1977, for a review). However, the basic idea is that a person contemplating an interaction with another, in this case a supportive interaction, decides how to respond partly through a cost-reward analysis (Bar-Tal, 1976). The potential helper assesses the negative consequences of the helping behavior (e.g., loss of time, required effort, or risked dependency of the needy person). He or she also weighs the possible internal rewards such as pride or enhanced self-esteem that might accrue from his or her behavior. Thus, it can be seen that an important implication for the cancer patient is how much he or she is demanding of the support person and how much he or she can provide some sort of reward, such as gratitude.

The cost-reward judgment also consists of deciding how costly it is to refuse the request for aid, including external sanctions such as social disapproval, and internal feelings of shame, dissatisfaction, or lower self-esteem (Bar-Tal, 1976). An evaluation of personal and social norms is important here.

Lerner (1974) has suggested that a simple cost-reward analysis is not applied to each situation in the same way. Instead, he believes that people invoke the notion of justice, or "deservingness" when assessing a potential interaction, and this justice may be of a different sort for different situations. An important aspect of this is the way in which people in the particular situation are related to one another (e.g., family or strangers); the type of relationship will evoke certain rules on which to act. Thus, given a certain situation and a certain relationship, need may be more salient in guiding behavior; in another case, equity is of more concern.

There are no data to date that provide information about such processes in the social support of the cancer patient. Yet, it would seem that this is an important part of the support person's decision to give support, and how much to give.

Finally, perceived competence is a cognitive constraint that appears to be of some importance in social support of the cancer patient. A relatively large number of studies in the helping literature suggest that perceived competence for certain tasks facilitates helping behavior (see Piliavin, Dovidio, Gaertner, & Clark, 1981, for a review). The opposite is true if the potential helper experiences feelings of incompetency, failure, or depression (Bar-Tal, 1976). This has serious implications for social support in the cancer situation, since feelings of incompetence and failure seem to be quite common in support persons.

Silver and Wortman (1980) suggest that interacting with people who are suffering can produce feelings of awkwardness and inadequacy because there may be little that one can say or do to help. Such feelings with regard to the cancer patient seem to occur among professionals as well as family and friends of the patient. Several investigators note that there is generally a lack of training in emotionally supportive skills among professionals (Barckley, 1967; Rosser & Maguire, 1982). In one study, patients who had sought medical advice from "quacks" were interviewed as to why they had done so (DiMatteo, 1979). The subjects reported that a major reason for their behavior was that their own doctors had exhibited little understanding and reassurance, and had communicated insufficiently with them about their treatment. Other articles indicate that patients and relatives often do not expect emotional support from doctors (Bond, 1982; Castles & Keith, 1979; Mages & Mendelsohn, 1979), despite the fact that they may wish it (Bean et al., 1980).

This lack of training often leads to perceived incompetence among professionals themselves. In a study of nurses working with cancer patients (Vachon et al., 1978), the nurses were found to experience many difficulties in dealing with patients' psychosocial needs. In addition, they found their own negative feelings hard to handle, and they were bothered by their inability. Nurses felt impotent when patients asked them questions for which they had no answers, but for which they believed their training should have prepared them. This perceived lack of competence seriously interfered with delivery of service to the patients.

Feelings of incompetence among professionals also stem from the nature of the disease itself. Cancer is not always amenable to treatment and frequently ends in death, despite heroic efforts at curing the patient. Particularly with terminal patients, staff may feel a sense of inadequacy and failure, because the job they are "supposed" to do is beyond their grasp (Abrams & Finesinger, 1953;

Nelson, 1972; Quint, 1965; Rosser & Maguire, 1982). Professionals may tend to give up on patients and withdraw from them as a consequence of these feelings.

Families also have problems in perceived competency, being unsure of how to relate to their sick relative. They frequently turn to staff for information, using staff attitudes as cues for their own behavior (Cassileth & Hamilton, 1979). Families may experience acutely their lack of control in the cancer situation, and they may fear that even their love and concern will not be enough in the end (Barckley, 1967).

Both family and friends are confronted with a new experience in the cancer situation, one that demands certain behaviors which they may not be able to identify or provide. This can lead to withdrawal of any attempts at support, because they perceive that they "don't know how to act" (e.g., Herzoff, 1979). Peters-Golden (1982) found that discomfort about the correct way to act was partly responsible for avoidance behavior in healthy subjects. These problems are rooted in the fact that the needs of the cancer patient are, indeed, often difficult to meet, even for a trained professional. The tasks which the support person is called on to perform are truly complex in some ways and are often beyond the scope of everyday experience.

<u>Behavioral constraints.</u> This set of constraints revolves around definition of goals and tasks in dealing with the patient. From the preceding discussion, it is apparent that this process often is very difficult. The support person is concerned with the following questions, although they are probably never made explicit: What does the patient need from me? How specific and clearly defined is this

need? Is there a series of clearly defined tasks or actions that will meet the need? How realistic is it for me to attempt to meet this need? How will I know when the need has been met or if my actions have been adequate?

These questions are not easily answered in any human interaction, but they may be particularly difficult in the cancer situation. Many of the factors discussed previously contribute to this difficulty. LaGaipa (1981) has summed up the problem of defining the tasks involved in social support in the following way:

> ...Each of the content dimensions (i.e., support dimensions) makes certain task demands on the individual or social system that make it difficult to 'give' or 'receive'. The tasks are sometimes complex, ambiguous, and even contradictory in nature so that it is often difficult to measure progress towards goal-directed activity, or to know precisely when a goal has been reached. For example, how can one specify when an individual has found his 'identity'? How much emotional support is adequate? There are few guides available, particularly for the higher-level resource types. (p. 78)

There are few data regarding this problem in the cancer literature. Two other studies, however, may provide some flavor of the difficulties encountered in this area and their possible consequences. In one anecdotal study, two sociologists reported on their experience of the death of a relative in the hospital (Starker & Starker, 1982-83). These authors describe the difficulties that family and friends had in establishing their supportive tasks and the designation of responsibility for carrying out those tasks. In the end, the ambiguity of the task structure and the fluidity of leadership responsibility led to dissension and splitting among the support group. The result was that little effective support was provided.

In another more systematic study, attribution of responsibility to the victim and disruption of social interaction were explored as alternative explanations for differential social distance from individuals with varying types of stigmas (Albrecht, Walker, & Levy, 1982). Cancer was one type of stigma included in the study. The results suggested that differential rejection stems more from social disruption than from any attribution of responsibility to the victim. This social disruption was experienced as a result of ambiguity surrounding the social interaction for more than 80 percent of the subjects in response to the physically disabled, including cancer patients. The authors sum up their findings in the following way:

> ...Individuals have three initial choices when confronting a stigmatized person: ignore the person altogether, try to determine the most appropriate way to acknowledge the condition, or attempt to ignore the differences. Any of these choices involves added effort beyond that required for normal interaction because both individuals have to organize activity in ambiguous circumstances; the mutual responsiveness is tentative because expectations are unclear; the identities of the two parties often are incongruent since neither knows what to expect; and the shared or reciprocal focus is difficult to achieve because common interests are negotiated under strained circumstances. Given these disruptions of interaction, we would expect the disengagement and distancing behavior the respondents reported. (p. 1325)

Thus, various difficulties in defining patient needs and supportive behaviors may lead to withdrawal by the support person.

Normative constraints. These are constraints that arise from societal or cultural expectations about behavior. In the present case, one of the costs that the support person might weigh in the decision to help the cancer patient is that of the social sanctions against him or her if he or she does not do so (Bar-Tal, 1976). At the same time, the social rewards of engaging in supportive behavior may also be considered.

There are several norms in this situation which might help to dictate the support person's behavior. One of these is the norm of social responsibility (Berkowitz, 1972). This norm prescribes that an individual should help those who depend on him or her and need his or her assistance (Bar-Tal, 1976). Another norm has to do with the behaviors that are expected to accompany certain roles. It is a truism that husbands, for example, should meet certain needs of their wives, regardless of the situation and the cost to themselves. Other roles hold similar dictates on behavior, although some are more loosely defined than others (e.g., friend vs. mother).

Finally, the norm of reciprocity (Gouldner, 1960) may have a significant effect on the interaction of the support person and the patient. This norm dictates that people should "get what they give, and give what they get". In other words, people expect that they should be somehow rewarded for acts done to the benefit of others. The norm is regulated by feelings of indebtedness on the part of the recipient of those benefits (LaGaipa, 1981).

In considering the cancer situation, the reciprocity norm has some powerful implications for supportive behavior. Support persons who have done something for the patient may be reluctant to continue to do so if they receive nothing in return. To be sure, most support persons adjust their expectations of reciprocation with the patient's limitations in mind. Thus, simple gratitude may be enough. However, if even this is not forthcoming, the support person may withdraw. Evidence of such a process has been noted by Wortman and Dunkel-Schetter (1979), who cite the support person's frustration with continued demands from the patient who does not provide enough positive return in terms of improvement. This norm also affects the patient's behavior because of his or her experience of indebtedness. This will be taken up in a subsequent section.

Factors Influencing Constraining Variables

There are a number of factors which may be related to the constraints experienced by the support person. These can be grouped in the following categories: disease characteristics; demographic characteristics of the support person and the patient; perceived characteristics of the patient's response to the situation; type and perceived quality of the relationship between the support person and the patient; and perceived characteristics of the support system. Perceptions experienced by the support person are of interest here.

The nature of the interactions among these factors and the constraints is undoubtedly complex. For example, certain factors may be related directly to the constraining variables, or they may be indirectly related by mediating the impact of cancer on the patient. As well, the different factors themselves are interrelated, but exploration of these relationships is beyond the scope of this study.

A review of these factors follows. While investigators have advocated the need for research in several of these areas (DiMatteo

& Hays, 1981; Heller, 1979; Silberfarb & Greer, 1982; Weisman, 1979), there is a relative paucity of information relating these factors to the support of cancer patients in any way.

Disease characteristics. The effect of disease characteristics on support is unknown at this point. Few studies have considered this. Dunkel-Schetter (1982), in her analysis of such relationships, found few significant associations. The effects of disease characteristics on the impact of cancer have received slightly more consideration. Yet, findings in this area are equivocal. Clearly, more research is needed which takes into account various aspects of the disease process.

One such aspect is the site of the cancer. Intuitively, it would seem that site would affect the impact of cancer on the patient. For example, the loss of a minor internal organ requires far less adjustment, presumably, than amputation of a limb. Some studies have found significant relationships, but others have not been clear in their findings. Part of the lack of clear evidence may be due to the fact that most studies look at site incidentally, rather than as a major focus of interest.

Two studies have found some relationships between site and impact of cancer. In one investigation, site was found to be an important clinical variable in treatment. Lung cancer patients, for example, required the most serivce and melanoma patients the least (Gordon et al., 1980). In the same study, site was found to involve separate clinical issues (e.g., differing body concerns and varying reactions to types of medical treatments). Different patterns of recovery and affect were associated with different sites, as well. The second study reported that few main effects of site on the impact of cancer were found (Dunkel-Schetter, 1982). However, type of cancer was significantly related to the number of symptoms and the amount of stress reported, with breast cancer having more impact than colon-rectal cancer.

Thus, site appears to have some effect on the impact of cancer on the patient, although the relationship is not clear, nor does it seem to be strong. Further study is needed. The implications of this for support also are unknown. To date, it is not clear that site has a direct effect on support processes, although this is possible.

Another characteristic which needs to be considered is the chronicity of the disease, or time since diagnosis. Again, the findings are equivocal. Dunkel-Schetter (1982) found only a few notable effects of time since diagnosis on support variables. Total satisfaction, satisfaction with advice, and satisfaction with aid from spouse were positive functions of time. Contrastingly, talking as a means of coping decreased over time. Dunkel-Schetter noted few correlations between time since diagnosis and outcomes, except that adjustment was less difficult the longer it had been since diagnosis.

Revenson et al. (1983) did find an interesting relationship between chronicity and support as it related to adjustment. They examined the relationship between naturally occurring, supportive behaviors and psychological adjustment to illness of a group of non-hospitalized adult cancer patients over an extended period. Their results indicated that although support appeared to have few effects on adjustment at either measurement time point, it was related to poorer adjustment for patients who were not undergoing physical treatments. It appears from these findings that support in chronic illness, where there is an absence of treatment or anything to suggest "crisis", may seem inappropriate, falsely optimistic, over-solicitous, or ignorant to the patient (Revenson et al., 1983). Thus, the patient's perception of support may change over time. However, it is apparent that more investigation of chronicity is needed to fully understand its relationship to support.

Prognosis is another characteristic which may be of some importance, although there are few data available. The emotional reactions and adjustment processes of patients would certainly be expected to differ with prospects for recovery or death. Furthermore, the support persons presumably would find the prospect of death more stressful than the prospect of recovery. Still, there is little systematic evidence to back these assertions. Dunkel-Schetter (1982) did find that subjects with more recent diagnoses and poorer prognoses had more difficulty adjusting than did subjects with less recent diagnoses or better prognoses. Also, there was some evidence that support may be related to more positive outcomes among people with better prognoses than those with poorer prognoses. It may be that the concerns of the poorer prognosis patients are less amenable to supportive intervention.

A final disease characteristic of interest is that of the stage of the disease. Stage in this case refers to the actual disease course, including diagnosis, initial treatment, recovery, recurrence, subsequent treatment, and the terminal period. It does not refer to hypothesized emotional stages (Abrams, 1966; Giacquinta, 1977; Holland, 1978; Milton, 1973; Silberfarb & Greer, 1982), the existence of which has been difficult to support (Silver & Wortman, 1980; Wortman & Dunkel-Schetter, 1979). Again, there is little evidence relating disease stage to either impact of cancer or support, suggesting that more work needs to be done in this area. Silberfarb, Maurer, and Crouthamel (1980) found that time of first recurrence was the most difficult for a sample of breast cancer patients, compared to the four-month period after initial treatment and the twelve weeks before final treatment. Other investigations have indicated that the time immediately after diagnosis is particularly stressful for many patients (Greenleigh et al., 1980; Morris et al., 1977; Weisman, 1979). Dunkel-Schetter (1982) found that stage was related significantly to functioning, difficulty in adjusting, and global physical change, but not to other outcome measures such as stress and self-esteem. No significant relationships between stage and support variables were found.

Demographic characteristics. There is little information within the cancer literature regarding various demographic characteristics of the support person that might influence supportive behavior. The most frequent observations regard sex differences, with men and women in the non-diseased population having different attitudes toward cancer (American Cancer Society, 1980; Peters-Golden, 1982). It is unclear, however, what these attitudinal differences mean for support. Relatively more data are available in the literature on helping and stigmatization. Although findings are inconsistent, there are some noticeable trends. There appear to be sex differences in altruistic behavior. Females tend to refuse more than males to help in embarrassing or ambiguous situations, and they also tend to be more willing to aid highly dependent people (Bar-Tal, 1976). Females also tend to show more favorable, accepting attitudes toward physically disabled people (English, 1977). In terms of age, it has been found that older people tend to be more willing to give help (Bar-Tal, 1976). These data may have implications for social support in cancer, but much more study needs to be done.

The relationship of patient demographics to the impact of cancer or to support also is unclear. Age seems to be somewhat related to the impact of cancer, with older people responding with more equanimity. This seems to be true of mastectomy patients, in particular (Jamison et al., 1978; Maguire, 1975; Renneker & Cutler, 1952), where sexual relationships are a factor. Mages and Mendelsohn (1979) also report age differences in response to cancer, which they attribute to different "developmental" tasks. Age also has been shown to have a possible relationship to the effects of social support (Funch & Marshall, 1983), although the exact implications of this study are unclear. Mages and Mendelsohn (1979) report that sex seems to be related to the impact of cancer; men in their studies seemed to experience more negative effects on several measures than did women. Possible differences in psychosocial needs by sex were indicated in another study (Young-Brockopp, 1982), although they were slight. Finally, educational level of the patient has been associated with awareness of the disease in terminal patients (Moses & Civadali,

1965) and possibly with a tendency to seek treatment (Renneker & Leib, 1979). Obviously, none of these data give strong indications about the relationship of demographic characteristics to support, but they do indicate a need for further exploration.

Perceived characteristics of the patient's response. The patient's response to cancer itself has been discussed earlier. Clearly, the characteristics of this response will, in part, affect the support person's perception of the situation and will have implications for support. For example, if the patient responds to the cancer with a deep depression, the support person may be less likely to maintain contact than if the patient adjusts fairly well to the disease.

Another important aspect of the patient's response is how he or she reacts to the support situation itself. The support person's perceptions of this response may be a crucial factor in the type of support he or she gives, or whether support is given at all.

There are several ways in which the patient may respond to the support situation that may have negative effects on support. One involves the protection of others and the hiding of symptoms and feelings (Wortman & Dunkel-Schetter, 1979). Patients quickly perceive the discomfort that cancer and their own responses to it arouse in other people. In order to prevent the further dissolution of their support systems, they may try to "cover up" the negative aspects of their experience, whether physical or emotional. One patient gave her physician optimistic but incorrect reports when he came by on morning rounds. When asked why she had done this, she replied, "Oh, I haven't told him. He has tried so hard; my family has been through so much. I don't want to disappoint them" (Weisman, 1979, p. 20). Weisman sums up the process in this way:

> ...part of coping well depends on the social context, including supportive others. Here, too, one finds difficulties, because the social context is also a social contract: one is acceptable, provided that ordinary functions and social roles are preserved. This means that disease or even a history of a serious illness is kept hidden. Consequently, some cancer patients continue working, regardless of how sick they feel inside. They know that cancer frightens people, and that the cancer patient symbolizes such fears. Nothing, therefore, is said. As a result, there are patients who do not complain, and do well, seemingly, until a few days before death. They are not especially stoical, but wish fervently for privacy, as if significant others can tolerate only so much. Thus, trust has its limitations and conditions. (pp. 11-12)

Others have commented on this process as well (DiMatteo & Hays, 1981; Holland, 1978; Krant, 1981; Rosenbaum et al., 1981). Even children with cancer engage in this "protectionism" (Binger et al., 1969; Kalnins & Churchill, 1981).

Furthermore, there is evidence that this kind of protection is often appreciated by the support system. For example, Feder (1965) found that patients best liked by staff on a cancer ward were those who had faith, took things for the best, and did not bother other people. The consequences of this behavior, while possibly viewed positively by the support system, can result in feelings of hopelessness, isolation, and loneliness (Coates & Wortman, 1980), and may separate the family, alienate the person from supportive others, and erode trust (DiMatteo & Hays, 1981). It also prevents the accurate definition of task characteristics and may be a source of frustration to the support person.

Another response of the patient involves his or her reactions to "encouragement". It was pointed out earlier that the support system often tries to maintain a positive attitude around the patient, despite contrary feelings. Patients have been found to react negatively to forced cheerfulness and encouragement (Peters-Golden, 1982), because they are not allowed to reveal their true feelings (Silver & Wortman, 1980). The patient's negative reactions may produce anger and resentment in the support person, because his or her support seems unappreciated. DiMatteo and Hays (1981) have emphasized the importance of support being returned to the support person, in the form of gratitude from the patient. Obviously, gratitude will not be forthcoming if the patient has strong negative reactions to supportive efforts.

This leads into the notion of reciprocity and its relation to problematic behaviors in the patient. As mentioned earlier, the norm of reciprocity in helping interactions dictates that the recipient must return a benefit to the helper. Because of the cancer patient's situation, this may be difficult for him or her to do, particularly if his or her personal norms dictate that gratitude is not enough. Several reactions on the part of the patient can result from this inequity.

The patient may experience considerable indebtedness as a result of his or her inability to reciprocate. This is an uncomfortable position in which to be (Bar-Tal, 1976). The patient may resort to cognitive restructuring of the supportive behavior, to lessen its value and reduce the sense of indebtedness. Inability to reciprocate may also lead to feelings of dependency and a loss of self-esteem (Fisher, Nadler, & Whitcher-Alagna, 1982; Gross & McMullen, 1982; Revenson et al., 1983). In reaction to this, the patient may restrict the types and amount of support that he or she is willing to accept. Such behavior on the part of the patient may confuse and anger the support person, making the provision of support even more difficult.

Type and perceived quality of the relationship. The type of relationship (e.g., family, close friend, acquaintance) that exists between the patient and the support person seems to be an important factor in support. Most often, the family is studied in relation to support (DiMatteo & Hays, 1981). However, there is accumulating evidence that there are important differences in quality and type of support based on the type of relationship. Some of this comes from studies in other areas of social support (e.g., Salloway & Dillon, 1973; Wilcox, 1981). One study indicated that because of differences in structure, neighbors and family varied as to when they were called upon to perform tasks, and this was related to time urgency (Litwak & Szelenyi, 1969).

Studies specifically related to cancer have shown that the type of relationship may make a difference in the quality of social support. Mastectomy patients in one study expressed surprise that many close friends disappointed them, while "marginal" friends helped them greatly (Peters-Golden, 1982). Type of relationship has also been related to experiences of self-esteem among cancer patients

(Wycoff, 1982). Patients in this study found that occasional visits from friends increased measures of self-esteem while daily visits from mothers decreased them. Sex, prognosis, income, and marital status were found to be important mediating variables in this relationship. In another study, a similar finding indicated that friends were of significant help to patients in areas where families were not (Dunkel-Schetter, 1982). In this study, the more close friends the patient had, the fewer the symptoms he or she experienced. The number of close friends was also positively associated with the level of self-esteem and emotional balance. Negative emotions were related to having fewer close friends (e.g., anxiety, anger, and depression) and more trouble adjusting. Patients with more close family members, in contrast, had more problems in functioning.

The trend seems to be, at least in these studies, that friends can often provide more valuable support than families. Yet, results are not extensive enough to be certain. Weisman (1979) comments that it is erroneous to assume that the family will always be the staunchest ally of the patient. Yet he also notes that friends tend to withdraw much more quickly from the sickbed, because their relationships to the patient are fairly circumscribed in time, depth, intimacy, and commitment. He has found that newly diagnosed patients do not rank friends and associates [illegible] high with respect to problems and concerns they are experiencin[illegible]ggests that this indicates the limited expectations held about [illegible]ends. Clearly, there is some controversy here which requires more exploration.

There is also a small amount of evidence that the characteristics of the relationship also affect support. For example, similarity of experience has been found to be an important factor in social support (Walker et al., 1977). Hirsch (1981) has emphasized the importance of examining relationships in terms of their content, process, and development. Two of his studies showed that multidimensional friendships (i.e., those that serve a variety of supportive functions rather than just one) are important sources of satisfaction (1979) and that they are significantly associated with better support and mental health (1980).

Perceived characteristics of the support system. Various characteristics of the support system, such as structure, have already been noted as being important in considerations of the delivery of social support. However, there is little information regarding the support person's perception of the support system and how this influences his or her participation in the support process.

Systems theory would suggest that the support person does not operate in a vacuum. Instead, the behavior of each support person is interdependent with that of other people in the system (LaGaipa, 1981). Members' actions will be affected by the need to maintain equilibrium in the system, as well as by the need to compensate for one another. Furthermore, conflict may be present within the system which will influence a particular person's responses. For example, if a friend of the patient is visibly disliked by the patient's family, the friend is less likely to spend time at the patient's bedside. Thus, the support person's perception of the support system and his or her position in it is an important consideration.

Various possibilities have now been presented as to the variables that constrain the support person in his attempts to deliver support to the cancer patient. As well, several factors that might influence these constraints have been suggested. An overview of the present study, focusing on these variables, will be presented next.

Statement of the Problem

Overview

Cancer has a significant impact on the lives of its victims. Its effects are not only physical; cancer usually reaches into the psychological, emotional, social, and functional aspects of life as well. Cancer patients experience a variety of needs as they attempt to adjust to this tremendous disruption of their lives.

One of the most powerful influences on the patient's adjustment at this time is that of his or her interpersonal relationships. Social support has been found to have a significant effect in helping patients to face the threats imposed by cancer. This support may come from a number of sources and take many different forms.

Unfortunately, there are sometimes difficulties that arise between patients and members of their support systems. The stressfulness of the cancer experience takes its toll on even the most stable of relationships. The result is that patients' needs for support are often not met adequately, or are not met at all. Problems can be seen on both sides of the interaction. The patient may be unreceptive to support, unwilling or unable to communicate needs, or unable to respond in a way that ensures the continuation of adequate support. Members of the support system may be unsure of how to give support, have misperceptions of patient needs, or be unable to be supportive even when they know what is required. Feelings of frustration and resentment may arise on both sides, further compounding relationship problems.

There are several limitations in the existing research which have hindered understanding of this breakdown of support (Tyre, Yanchar, & Tyre, 1982; Wortman & Dunkel-Schetter, 1979). Most of the "data" reported are largely based on observation and anecdote rather than systematic exploration. Those studies that are more systematic are plagued with such problems as small sample sizes, severe attrition rates, unreliable measurement techniques (Wortman & Dunkel-Schetter, 1979), and little or no use of statistical analyses. The choice of sample has often been limited as well, with the focus being primarily on the patient. This is an understandable bias, yet much of the literature has effectively left out data from the support person.

A more theoretically-based problem has to do with the nature of social support itself. This construct is a multidimensional one. There are many facets of social support which must be taken into account in order to adequately understand problems in its delivery. Yet most studies are hindered by poor conceptualization and measurement of social support. There has been a tendency to focus on the quantitative aspects of support rather than the qualitative aspects. Supportive behaviors have not been adequately enumerated and defined as to their specific components. As well, the various factors that influence supportive behavior from cultural, interpersonal, and individual levels have frequently been ignored.

Objectives of the Study

The general area of research involves the delivery of social support to persons with problems in physical or mental health. The present study focuses on one aspect of this, namely, the support given cancer patients from the perspective of the support person. In particular, the support person's perception of certain problems in providing support is of interest. This is in contrast to most other studies, which have investigated the cancer patient's perceptions.

The first objective of this study was to identify some of the basic dimensions underlying the various constraints or support problems that have been noted in the literature. An effort was made to establish a conceptual framework reflecting these dimensions, within which the numerous experiences of support persons might be organized. A major component of this objective was the development of a self-report instrument that would provide a vehicle for further understanding the nature and extent of support problems within a given population of support persons.

The second objective was to examine the relationship between different types of social support and various support problem dimensions. An observation from the literature review is that research involving a multidimensional approach to social support has been limited. Thus, attention was given to examining support problems in terms of specific psychosocial resources instead of generalized support. These resources included practical help, emotional expression, advice and guidance, and empathic understanding. A comparative analysis was done across these types of support to assess whether certain support problems are more salient than others, depending on the type of support being given. If each type of support requires different skills and strategies on the part of the support person, then differences in the kinds of problems encountered would be expected. It should be noted that a component of this was the development of adequate definitions of the various support types.

The third objective was to explore the relationships among the support problems, certain contextual variables, and satisfaction with support given. The kinds of problems that a support person may perceive and report are influenced by a number of variables that are not, as yet, fully understood. As well, the support person's perception of his or her support, as reflected by satisfaction, may be affected by many factors, including the problems he or she faces. The goal here was to attain a preliminary understanding of which variables merit more attention in understanding support problems and which require relatively less.

It was hoped that such a study would begin to clarify the problems in giving support to cancer patients, in a way that was more systematic than much of the previous work. Moreover, some of the findings may be applicable, with further research, to other health problems. Such knowledge will hopefully contribute to the prediction and prevention of breakdown in support. An understanding of the reasons underlying the withdrawal of support seems essential for the effective mobilization of a support system.

CHAPTER II

METHODOLOGY

Sample

The sample consisted of 157 family members and friends of cancer patients drawn from various sources. One major source of subjects was the Ontario Cancer Foundation Clinic in Windsor. Forty-seven subjects were obtained from the Radiotherapy Unit, where they were accompanying patients receiving radiotherapy or patients who were simply having a checkup after apparent recovery. Twenty-eight subjects came from the Chemotherapy Unit, where they were accompanying patients receiving chemotherapy. Another major source of subjects was the University of Windsor, from which 62 students who had been involved with a cancer patient were obtained. As well, a group of 19 subjects was drawn from various sources in Windsor and other communities. (One subject was not coded for source.) It should be noted that these subjects are different in a critical way, with the first two groups being immediately involved in giving support and the latter two groups being removed to a greater degree both in proximity and in time from the cancer patients.

The total sample was 34% male and 66% female. Ages ranged from 15 to 80 years, with 55% of the sample being between 20 and 49 years old. In terms of relationship to the patient, 45% of the subjects were from the immediate family, 32% were relatives, and 23% were friends. A more detailed breakdown of these data, as well as other descriptive data, is presented in Appendix E.

Description of the Instrument

A major focus of this study was the development of a questionnaire to assess support problems and their possible correlates. The final instrument can be found in Appendix A. The questionnaire has three major components which focus on contextual or background variables, satisfaction with support, and the support problems themselves. Each of these major subdivisions will be described, with particular emphasis on the last, since the development of the scales tapping support problems was a large portion of the study. In terms of the contextual variables, certain descriptive findings in these areas will be presented as well.

A section was included at the end of the questionnaire asking subjects for comments about their support experience. While a few subjects responded, these data were not used in the present study.

Contextual Variables

This set of variables was utilized to assess the context in which support took place and to determine which aspects of context were related to support problems. Several different areas were tapped, including the type of relationship between the subject and the patient, demographic characteristics of the subject and the patient, disease characteristics, the patient's reaction to the illness, support system characteristics, the subject's involvement with the patient, and the quality of the relationship between the subject and the patient.

Type of Relationship. This was a variable of major interest. Subjects were asked to indicate the patient's relationship to themselves (e.g., mother or friend). A detailed breakdown of relationships named and their relative frequencies is given in Appendix E. For the sake of statistical analysis and interpretation, the numerous categories were collapsed into three groups: Immediate Family, including Spouse, Parent, Child, and Sibling (_n_ = 71); Relatives, including Grandparent, Other Relative, and In-Law (_n_ = 50); and Friends (_n_ = 36).

Demographic. Subjects were asked to indicate their own sex and age, the findings for which were presented in the description of the sample. Additionally, they were asked to indicate if they had been born in Canada or the U.S., and if not, how long they had lived in either country. The reason for this was the elimination of data which might be affected by language difficulties. All subjects included in the study who had been born elsewhere had lived here for at least nine years, and most had been here much longer.

Subjects were also asked to indicate the sex, age, and marital status of the patient. The patient's marital status was of interest because of its possible implications for the support process. Demographic data on the patients described are presented in Appendix E. Forty-five percent of the patients were male, and fifty-five percent were female. Ages ranged from 8 to 86, with 57% being between 50 and 74 years old. Marital status groupings were collapsed for statistical analyses to three groups: Married (_n_ = 91); Single, including Single, Divorced, and Separated (_n_ = 32); and Widowed (_n_ = 31). This was done since so few patients were divorced or separated.

Disease Characteristics. An important question in the study was whether differences in disease characteristics might account for differences in support problems. Subjects were asked to describe several aspects of the disease, to the best of their knowledge, including the type or site of the cancer, the treatment the patient had undergone, whether the disease had spread from its original location, and the current status of the patient. Detailed data concerning frequencies are presented in Appendix E.

Several types of cancer were listed including some of the most common forms, and the subjects were asked to check off the appropriate type. An Other category was also provided. For statistical analysis, five groupings were utilized, with some groups being collapsed into the Other category due to low frequencies. Groups included Breast (n = 28); Lung (n = 30); Colon-Rectum (n = 13); Leukemia (n = 12); and Other, including such varied types as skin, cervical, liver, prostate, and Hodgkin's disease, among others (n = 61). In 13 cases, the type was unknown.

For Treatment, subjects were asked to indicate whether the patient had undergone surgery, chemotherapy, radiation therapy, a combination, or some other form of treatment. For statistical analyses, four groups were used: Surgery (n = 22); Chemotherapy (n = 30); Radiotherapy (n = 27); and Combined (n = 68). In three cases, some other form of treatment was used and in seven cases the type of treatment was unknown.

Subjects were also asked to indicate whether the disease had spread to other parts of the body, if the patient was still living. Two groups were utilized in subsequent analyses, including those where spread had occurred (n = 25) and those where it had not (n = 52). In 25 cases, the answer was unknown. In 55 cases the patient had died, and it could not be ascertained whether this was due to spread of the disease or some other factor.

A final disease characteristic about which the subjects were asked was the patient's current status. It seemed possible that the stage of the illness, particularly in terms of recovery potential or death potential, might have a bearing on support problems experienced by support persons. In this case, all possible groupings were used in subsequent analyses, even though one group was very small. Groups included patients who had recently begun treatment (n = 46); who had had lengthy treatment (n = 25); who had apparently recovered (n = 24); who were terminal (n = 7); who had recently died (n = 29); and who had died some time ago (n = 26).

Patient's Reaction to Illness. An important component of support problems might be the strength of the patient's negative reactions to having cancer. For example, a very frightened or depressed patient might be more difficult to support than one who is facing the disease with more equanimity. Subjects were asked to identify which, if any, of seven common reactions they felt the patient had experienced. These included denial of illness, depression, anger, anxiety, social withdrawal, feelings of over-dependency, and feelings of rejection. For statistical analyses, a composite score was developed which was a simple additive index of scores which had been checked. Thus, one score was generated for patient raaction, representing an overall estimate of the patient's negative experience. Because of the coding system, a lower score indicated more of a negative reaction. For a detailed breakdown of the frequencies for each type of reaction, see Appendix F.

Support System Characteristics. This is a broad and complex area, many aspects of which might be related to support problems. In the current study, it was hoped that simply a crude estimation could be made of the relative importance of support system characteristics to support problems. Subjects were asked to indicate the number of good friends of the patient in the community and the number of relatives as well on a three-point scale (Few, Some, Many). They were also asked to estimate the degree of interaction among the patient's relatives on a three-point scale (Little, Some, Great Deal).

Self-Involvement. It makes intuitive sense that the degree of the support person's involvement with the patient would be closely related to the experience of support problems. Subjects were asked to indicate on a five-point scale their involvement in providing support to the patient. Twenty-four percent of the subjects said that they were slightly involved; twelve percent were rather involved; ten percent were quite involved; twenty percent were very involved; and thirty-four percent were extremely involved.

Quality of Relationship. The last contextual variable had to do with the types of interaction that characterized the relationship before and during the illness, and the kinds of support that were most desired by the patient. It was felt that these relationship qualities might directly influence both the type of support problems experienced and satisfaction with support given. For example, more problems with emotional support might be experienced in a relationship that traditionally had focused on more instrumental interaction.

Five types of interaction were described, and subjects were asked to check off the two in each section that most reflected the relationship before and during the illness, and the types of support most desired by the patient. Descriptions of support were purposely worded to capture the two-way nature of the interaction (i.e., what the support person or patient could have done for each other). The descriptions are listed below.

Companionship: Enjoy each other's company; enjoy doing the same kinds of things together; have common interests.

Understanding: Have an accurate perception of the other person's feelings and thoughts; be able to reflect how the other person feels even when he/she cannot put it into words.

Helping: Provide material and physical assistance; give time and service; help with duties requiring time and effort; provide such aid as transportation.

Emotional Expression: Encourage the other person to open up and to share honestly his/her deeper feelings, problems, fears and concerns; help the other person to let go of some tension.

Advice and Guidance: Give information to aid in problem-solving, for example, where to go for help or practical suggestions for coping with problems.

For purposes of statistical analysis, these supports were collapsed into two main types, with instrumental support representing Companionship, Helping, and Advice, and emotional support representing Understanding and Emotional Expression. Simple additive scores for instrumental and emotional support were generated for before the illness, during the illness, and for the patient's desired support.

Because of the coding system, a lower number represented more support in a given area. At one point, difference scores were calculated comparing the quality of the relationship before and during the illness, and measuring the discrepancy between interaction during the illness and the patient's desires. However, these were not felt to be very representative measures and were used only in a few minor analyses.

Satisfaction Measures

The second major component of the questionnaire involved the support person's satisfaction with the various types of support he or she might have given. The types of support to be rated were those described in the previous section. An important aspect of the study was to assess whether the support problems reflected in the questionnaire items were related to satisfaction with support given, as would be intuitively expected. The role of contextual variables in the experience of satisfaction was also of some interest.

Subjects were asked to rate their degree of satisfaction with the support they had given in each of the five areas. Choices included: very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, and very dissatisfied. Separate satisfaction scores for each support type were used in subsequent analyses.

Support Problem Scales

The foremost objective of this study was to identify basic dimensions underlying support problems and to develop items that would adequately tap these dimensions for use in the questionnaire. As well, adequate descriptions of types of support, like those described in the previous section, needed to be developed. To help achieve these goals, a series of pretests were done, involving a total N of 508.

Pretesting was done in psychology classes at the University of Windsor. All students were allowed to participate if they wished, whether or not they had had contact with a cancer patient. Certain demographic data were gathered along with information regarding exposure to cancer patients or other seriously ill persons. If students had had no such contact whatsoever, they were asked to answer in the fashion that they believed would reflect their response in such a situation. Inspection of the data in terms of demographics and exposure did not reveal outstanding differences. Instructions to students for the pretests, along with the information asked, are presented in Appendix M.

To begin, five different areas of support were identified and given tentative definitions. These included the four in use in the present scales: Practical Help, Emotional Expression, Advice and Guidance, and Empathic Understanding. A fifth, Identity, was included as well but was subsequently eliminated because of difficulty in finding an adequate definition. With each pre-testing of items, students were asked to give opinions on the clarity of these definitions and to make suggestions for revisions. Note that Companionship was not included among these, nor is it a part of the present support problem scales. While Companionship is important in describing relationships because it characterizes so many interactions, it was felt to be substantively different from the other support types.

The final descriptions for support types were utilized both in the relationship quality section of the questionnaire and for the support problem scales themselves, although wording is different in each case. Descriptions for the scales reflect more of the one-way nature of support being given to the patient and involve more reference to illness.

To develop the scales themselves, an initially large pool of items was written tapping as many problem areas as could be identified and expressed in statements. This initial pool was reduced by inspection to 47 items which could apply to all the support types. These were administered to a group of 50 subjects who were asked to indicate their agreement with the items on a five-point scale as being reflective of problems they had experienced in giving a particular type of support to a sick person. Each subject was asked to answer the items in terms of two or three support types. Subjects in this particular testing were also asked to form groups and to discuss the items, choosing those which were "best" and those which were "worst" in terms of appropriateness and readability. Based upon their suggestions, 15 items were eliminated and some were rewritten.

The reduced number of general items (32) was then tested in the same fashion, without the group assessment, on 124 different subjects. This time, the data were factor analyzed. Three dimensions emerged involving affect arousal, task ambiguity, and personal costs as problem areas. These three areas subsequently became a main focus of the study. Items that loaded poorly on the three factors were eliminated.

Because these problem areas obviously did not tap all possible problems, particularly those that might be unique to a certain type of support, a set of specific items was generated. These items applied to problems within a certain support area (e.g., feeling vulnerable to the same fate when listening to the patient's expressions of fear or loss). Approximately 12 to 14 items were developed for each support type. These were tested on 111 subjects, using the previous format. Factor analyses of these items did not isolate clear dimensions, so a small number of specific items was kept for each type of support on the basis of apparent importance of content.

General and specific items together for each support type were subjected to a final pre-test. Each support type had between 25 and 27 items. Also included was an item having to do with effectiveness, as a preliminary measure of the relationship between problem areas and perceived support effectiveness. This item did not appear to adequately tap effectiveness, however, and was later revised.

These items were administered to a group of 223 subjects. The data were factor analyzed, and a final set of items was selected. Nine general items that were basically the same for each of the four support types were kept, with three items representing each of the major problem dimensions (Affect Arousal, Task Ambiguity, and Personal Cost). Five or six specific items were retained for each support type as well. Descriptions of the final scales represented by all of the items are presented in the Results chapter. In all, 58 items divided among the four support types were used in the questionnaire. Sample items from several stages of the pre-test are included in Appendix M.

Procedure

Since subjects were drawn from a number of different sources, several different procedures were used to administer the finalized questionnaire.

Clinic Sample

Approval for administration of the questionnaire was obtained from the Director of the Clinic. Several possible avenues of collecting data were explored with the staff. It was finally decided that subjects would be approached in the waiting areas for each unit by the present investigator. These areas were partitioned into fairly small groupings of chairs, offering a reasonable amount of privacy at most times. Signs were posted indicating the nature and source of the study.

Once it had been established that the person was waiting with or for a patient, he or she was shown the questionnaire and its purpose was briefly explained. Anonymity was assured, both verbally and on the questionnaire. People were asked if they would be willing to fill it out while they were waiting, and if they agreed, a pencil was given to them. They were also told they could ask questions of the investigator if necessary when she came by again. A private office had been provided in both areas in case subjects wanted to work privately or talk about difficulties related to support, but this did not occur. Completion of the questionnaire usually took about 30 minutes.

When subjects could not finish before they left, or when they did not wish to fill in the questionnaire at the Clinic, they were given a stamped, self-addressed envelope in which to return the form to the University. Return rates for this procedure were very poor, however, with one about in seven being sent back by mail. Thus, this was avoided whenever possible.

Overall response to the questionnaire was better than expected. Approximately two-thirds of the people approached agreed to fill out the form. Willingness to participate seemed to fluctuate from day to day, however. Participation was better overall on the Radiotherapy Unit than on the Chemotherapy Unit, a finding which staff attributed to the relatively less traumatic treatment procedures and less advanced cases of the disease on the former unit.

Data-gathering at the Clinic took place for approximately one month.

University Sample

Subjects from the University were drawn largely from introductory psychology courses. Approval was obtained from the Head of the Psychology Department to conduct the study. Students participating in the study from these courses were given an experimental credit point toward their grade. Notices were sent to teaching assistants in charge of these classes, to be read to the students. It was specified that subjects were to be either the family member or friend of a cancer patient, but that their exposure to the patient need not have been extensive.

Interested subjects were asked to report to a room where the investigator was administering the questionnaire at scheduled times. Students were asked for their names and student numbers, simply for the purpose of assuring that they received their credit. Again, the anonymity of their responses was underlined. Students were then given the form and a pencil, and instructed to fill it out at one of the tables in the room. There were no more than seven subjects in the room at one time. The investigator was available for questions at all times.

Subjects who were unable to attend at one of the scheduled times simply obtained a questionnaire from one of the departmental secretaries and returned it to her when it was filled out. Forms were available for approximately three weeks. Response was surprisingly good for both types of administration.

Other Sample

For the remainder of the sample, drawn from various other sources, questionnaires were sent by mail to contacts in the Windsor community and elsewhere. Stamped, self-addressed return envelopes were provided.

Solicitations for volunteers were also made several times at the Senior Citizens' Centre in Windsor, but the response was extremely poor. Only one subject volunteered to participate.

CHAPTER III

RESULTS

Scale Development

The main objective of this study was to create an instrument that would tap the support problems encountered in giving support to cancer patients. The development of scales representing support problem dimensions was the focus of this research. The last phase involved a factor analysis to replicate the previously-hypothesized dimensions and to calculate the reliability scores for the scales based on these dimensions. The results of these procedures will be presented here.

Factor Analysis

Several factor analyses were performed using principal factoring with iterations and the VARIMAX method of rotation. The items thought to tap the underlying dimensions of Affect Arousal, Task Ambiguity, and Personal Cost were analyzed across all support types, with the results shown in Appendix B. It is apparent that these dimensions were replicated, with Factor I representing Task Ambiguity, Factor II representing Affect Arousal, and Factor III representing Personal Cost.

Factor I (Task Ambiguity) includes three items which are repeated across support types: "I wasn't sure how the patient wished to be treated in this regard"; "I wasn't sure how such needs of the patient best could be met"; and "It was hard to tell if this was the right thing to do". It represents the difficulties encountered in assessing patient needs and formulating a plan of action to meet those needs.

Factor II (Affect Arousal) includes three basic items that are altered somewhat for each support type. Representative items include: "When I was depressed over the illness, it was hard to encourage the patient to express his/her feelings"; "I hurt so when the patient hurt that I couldn't give much advice"; and "Being around the patient really disturbed me too much to be of any service". This dimension is defined by the emotional impact of the illness on the support person which interferes with giving support.

Factor III (Personal Cost) consists of the most varied items in terms of content. Three basic items are altered somewhat for each support type. Representative items include: "I didn't always have enough time to give advice because of other responsibilities"; "I don't want someone else to depend upon me too much for help"; and "I didn't think it was my responsibility to encourage ventilation". This factor is largely defined by considerations of personal cost in terms of time and the risk of the patient's dependency; and to a lesser degree by the sense of responsibility for support.

When items were factor analyzed separately for each type of support, the dimensions were again replicated. The results were felt to be sufficient to justify use of the items for scales representing the three dimensions. Thus, 12 scales were created, including an Affect Arousal scale, a Task Ambiguity scale, and a Personal Cost scale for each of the four support types. It should be noted that for many subsequent analyses, these 12 scales were reduced to form three combined scales, representing each dimension across all the support types.

In addition, six other scales were created on the basis of items that were specific to a particular support type. Most of these items did not load on distinct dimensions, so that items were grouped simply on the basis of apparently similar content. Some specific items were eliminated from use in the scales because they tapped relatively discrete material that could not be combined with others items (Items 2, 13, 14, 32, 34, 38, and 45). The six scales are defined as follows (the support type they represent is in parentheses):

Physical Care - represents discomfort with giving physical care to the patient (Practical Help);

Vulnerability - represents the personally threatening aspects of listening to the patient's emotional experience (Emotional Expression);

Beliefs - pertains to beliefs that patients should refrain from talking too much about the disease (Emotional Expression);

Feelings - represents the experience of being too involved in or overwhelmed by the patient's problems to give useful advice (Advice and Guidance);

Vulnerability - represents the risk of experiencing considerable emotional pain when trying to empathize with the patient (Empathic Understanding);

Communication - reflects the communication difficulties encountered in trying to be empathic (Empathic Understanding).

All of the scales are presented in Appendix C with their representative items.

Alpha Reliabilities for Scales

Alpha reliabilities were calculated for each scale and are presented in Table 1. For scales representing the three major problem areas (Affect Arousal, Task Ambiguity, and Personal Cost), reliabilities were calculated within each support type and across all support types. The results for all scales were felt to be adequate to justify use of the scales for subsequent analyses.

Intercorrelations of the scales are presented in Appendix D. The intercorrelations for the three major scales combined across support types (Affect Arousal Total, Task Ambiguity Total, and Personal Cost Total) range from .58 to .66. Though the correlations are not low, they are not too high to preclude their usefulness as differential predictors.

Differences in Problems Across Support Types

The second objective was to determine whether differences exist in the types of support problems that are most salient for each kind of support given to the patient. Presumably, each support area requires different "strategies" by the support person and thus may be accompanied more by one type of problem than another. For example, the arousal of affect might be found to interfere more often with the act of trying to be empathic, whereas confusion over how to go about the task might be more of a problem in giving practical help. To explore this possibility, several simple multiple regression analyses were conducted using satisfaction with each type of support as the dependent measure,

TABLE 1

Alpha Reliabilities for Support Problem Scales

	Scale								
Support	AffAr[a]	TaskAm[b]	PCost[c]	PhyH[d]	VulnExp[e]	Belief[f]	Feel[g]	Comm[h]	VulnUnd[i]
Practical Help	.65	.74	.53	.61	-	-	-	-	-
Emotional Expression	.63	.79	.55	-	.73	.57	-	-	-
Advice	.71	.80	.67	-	-	-	.79	-	-
Empathic Understanding	.74	.79	.63	-	-	-	-	.73	.71
Total[j]	.89	.92	.88	-	-	-	-	-	-

Note. Affect Arousal, Task Ambiguity, and Personal Cost apply to each support type. Each of the remaining scales applies to only one type of support. A dash is used where the scale does not apply.

[a] Affect Arousal. [b] Task Ambiguity. [c] Personal Cost. [d] Physical Help. [e] Vulnerability/Emotional Expression. [f] Beliefs. [g] Feelings. [h] Communication. [i] Vulnerability/Empathic Understanding.

[j] This total is the reliability for the scale across all support types.

and the three support problems (Affect Arousal, Task Ambiguity, and Personal Cost) as predictors. The results are presented in Table 2.

The overall F-ratio for each equation is significant, suggesting that significant portions of variance can be accounted for in the satisfaction measures by the support problems. The strength of this predictive relationship is not consistent across types of support, however. Support problems are somewhat more related to instrumental types of support than to emotional ones. The proportion of variance accounted for is highest for Satisfaction with Practical Help ($\underline{R}^2 = .28$) and for Satisfaction with Advice ($\underline{R}^2 = .22$). It is lower for Satisfaction with Emotional Expression ($\underline{R}^2 = .15$) and for Satisfaction with Empathic Understanding ($\underline{R}^2 = .09$).

Task Ambiguity is a significant predictor of satisfaction for all four areas of support, reflecting that problems in knowing what to do are related to lower satisfaction with support given. Personal Cost is significantly related to satisfaction in three areas: giving practical help, encouraging expression, and giving advice. It carries the most predictive weight for Practical Help. It appears that less time to give support, fears of being depended upon, and less sense of responsibility can lead to less satisfaction with support given, particularly if it involves giving practical help. Affect Arousal is only a significant predictor of satisfaction with giving advice, suggesting that negative feelings can interfere with this type of support but do little to affect the other types. This is a rather surprising finding, since it would be expected that problems with affect would be more related to emotional types of support.

TABLE 2

Multiple Regression: Support Problem Scales as Predictors of Satisfaction with Different Types of Support

Scale	Satisfaction							
	Understanding		Practical Help		Expression		Advice	
	Beta	F	Beta	F	Beta	F	Beta	F
Affect Arousal	.07	0.50	.09	1.16	-.08	0.82	.18	3.55**
Task Ambiguity	.24	7.17***	.23	7.44***	.28	8.81***	.17	3.19*
Personal Cost	.05	0.25	.32	15.04***	.21	4.86**	.20	5.57**
R^2	.09		.28		.15		.22	
Overall F	5.34**		19.78***		8.98***		14.09***	

Note. N = 157.

*$p < .05$; **$p < .01$; ***$p < .001$.

The results suggest that there are some differences in saliency of support problems depending upon the type of support being given, at least when satisfaction is used as a measure. These differences are found largely in the relative strength of the problem areas as a whole in predicting satisfaction. Instrumental supports are more significantly related to the support problems than are emotional supports.

However, there are some common patterns shared across support types, as well. Task Ambiguity is a significant predictor of satisfaction with all types of support, and Personal Cost is significant for most. These two appear to be more significant predictors in general than is Affect Arousal.

Means for the support problems within each type of support are presented in Table 3. Overall, Task Ambiguity is more of a problem regardless of the type of support being given. A further analysis comparing the means within each problem area (e.g., Affect Arousal for Advice was compared with Affect Arousal for Empathic Understanding) reveals some significant differences. These differences are also indicated in Table 3. It is particularly noteworthy that differences between all three problem areas for advice-giving and problem areas for other supports are the most frequent. Relatively more difficulties appear to be experienced in relation to giving advice. This is an unexpected finding, since advice-giving is often assumed to be a relatively simple task.

TABLE 3

Means and Standard Deviations for Support Problem Scales by Support Type

Support	Scale: Affect Arousal M^a	Affect Arousal SD	Task Ambiguity M^a	Task Ambiguity SD	Personal Cost M^a	Personal Cost SD
Empathic Understanding	6.46	2.50	8.51	2.80	6.20	2.31
Practical Help	6.32	2.55	8.37	2.82	6.82	2.42
Emotional Expression	6.56	2.47	8.51	2.85	6.47	2.48
Advice and Guidance	7.06	2.46	8.97	2.75	7.03	2.58

Note. $N = 157$; $df = 156$. Comparisons of means were made within each column of means for each support problem scale. Significant differences are found between: Affect Arousal/Help and Affect Arousal/Advice ($p < .001$); Affect Arousal/Expression and Affect Arousal/Advice ($p < .001$); Affect Arousal/Advice and Affect Arousal/Understanding ($p < .001$); Task Ambiguity/Help and Task Ambiguity/Advice ($p < .01$); Task Ambiguity/Advice and Task Ambiguity/Understanding ($p < .01$); Personal Cost/Help and Personal Cost/Understanding ($p < .001$); Personal Cost/Expression and Personal Cost/Advice ($p < .001$); Personal Cost/Advice and Personal Cost/Understanding ($p < .001$).

[a] Higher means indicate agreement that there is more of a problem in this area.

Relationships Among Support Problems, Satisfaction, and Context

The third objective involved an examination of the relationships among the three general categories of variables on the questionnaire: the contextual variables, satisfaction, and support problems. The object was to assess which variables are related to support problems and satisfaction, and which variables do not noticeably influence the support situation. A number of statistical analyses were performed, including discriminant analyses, canonical correlation analyses, and multiple regression analyses. Each of these statistical approaches to the data will be presented here.

Discriminant Analyses

Discriminant analysis is used for assessing relationships among variables when one set of variables is categorical, or divisible into groups. It is an appropriate technique for testing the hypothesis that group means are equal on a number of variables (Hair, Anderson, Tatham, & Grablowsky, 1979). A score for each subject on all the variables is calculated and summed, and an average score is computed for the entire sample (group centroid). These centroids represent the most typical location of an individual from a particular group, and a comparison of the centroids tells how far apart the groups are along the dimension being tested (Hair et al., 1979).

The analysis entails derivation of the best linear combination of independent variables that will discriminate among the previously defined groups. It provides weights indicating the relative value of the independent variables in the equation. For this study, a stepwise derivation of the functions was utilized to minimize the number of variables for prediction purposes (tolerance = .001, F-to-enter = 2.0). Correlations of the independent variables with the derived function may also be obtained and are more appropriate for interpreting the actual relationships among the variables than are the discriminant weights. The weighting procedure distorts the relative values of the variables in its attempt to maximize linear prediction. The present study will therefore focus on the correlations for interpretation purposes. However, in some cases the discriminant weights will be provided in the Appendices.

Several tests for determining the relative value of the function in discriminating the groups are available and the relevant statistics will be reported here. One of these is the percentage of total variance in the discriminating variables explained by the function. Another is the canonical correlation (R), which is the correlation between the function and the group variables. As well, a Chi-square test of significance indicates the discriminating power remaining in the variables as each function is removed. Finally, the ability of the function to classify subjects into groups is indicated by a percentage measure of correct classification. This measure may be compared with an adjusted proportional chance criterion, which indicates the percentage of correct classifications that would occur by chance (Hair et al., 1979).

Analyses were performed on the following sets of categorical variables: type of cancer, spread of disease, treatment, patient disease status, patient marital status, type of relationship, and source of subjects. These are presented in more detail below. For the first five analyses, tables are not included; necessary statistics are in the text. The last two analyses will be given relatively more attention.

Type of cancer. The groups include Breast, Lung, Colon-rectum, Leukemia, and Other. Two functions significantly discriminate among the groups. The first accounts for 58% of the variance ($\underline{R} = .47$, $\underline{\chi}^2 = 60.30$, $\underline{df} = 8$, $\underline{p} < .001$). Patient age is the only variable significantly correlated with the function ($\underline{r} = .99$, $\underline{p} < .01$). This variable differentiates primarily the Leukemia group from the other groups. Examination of the means reveals that the Leukemia group includes the youngest patients and the Lung group the oldest patients. The second function accounts for 42% of the variance ($\underline{R} = .41$, $\underline{\chi}^2 = 25.57$, $\underline{df} = 3$, $\underline{p} < .001$). The only significantly correlated variable is patient sex ($\underline{r} = .99$, $\underline{p} < .01$). This variable differentiates the Breast group from the other groups. Correct classification is 39% on the basis of these functions; this barely exceeds the level of chance classification (37%), indicating that these functions are not powerful discriminators.

Spread of disease. The groups represent patients for whom the disease had spread and those for whom it had not. There are no functions which discriminate between the groups, and no significant differences between the group means on the independent variables.

Treatment. The groups include Surgery, Chemotherapy, Radiotherapy, and Combined Treatment. Three significant functions discriminate among the groups. The first function accounts for 61% of the variance ($\underline{R} = .35$, $\underline{\chi}^2 = 31.41$, $\underline{df} = 9$, $\underline{p} < .001$). Only patient age is significantly correlated ($\underline{r} = .85$, $\underline{p} < .01$), with the Surgery group being discriminated from the other groups on the basis of this variable. Examination of the means for patient age indicates that the Surgery group is the oldest and the Combined group is the youngest. The second function accounts for 27% of the variance ($R = .24$, $\chi^2 = 12.47$, $df = 4$, $p < .01$). Subject sex is most highly correlated with the function ($r = .86$, $p < .01$) and is accompanied by subject age ($r = -.42$, $p < .01$). Inspection of the means reveals that support persons for the Chemotherapy group are the most likely to be male and for the Surgery group to be female. Radiotherapy and Combined groups are not much different from the Surgery group on this variable. Support persons for the Radiotherapy group are most likely to be older and for the Surgery group to be younger. The third function, while significant, accounts for relatively little of the variance (12%) and thus makes interpretation difficult ($R = .16$, $\chi^2 = 3.87$, $df = 1$, $p < .05$). Classification accuracy is 47%, exceeding the chance level of 40%, indicating that these functions have some predictive power.

Patient disease status. The groups represent patients who had recently begun treatment, had had lengthy treatment, had recovered, were terminal, had recently died, or who had died several years ago. Means for these groups on certain significant discriminators are presented in Table 4. Three significant functions discriminate among the groups. The first function accounts for 67% of the variance ($R = .65$, $\chi^2 = 133.89$, $df = 35$, $p < .001$). Satisfaction with Emotional Expression has the highest correlation with the function ($r = .60$, $p < .01$), followed by patient reaction ($r = -.52$, $p < .01$). Vulnerability/Empathic Understanding ($r = .44$, $p < .01$) and Satisfaction with Empathic Understanding ($r = .43$, $p < .01$) are moderately correlated with the function. Some other less correlated variables include other satisfaction measures and some of the other support problems; their

TABLE 4

Means and Standard Deviations for Patient Status Groups on Selected Variables

Group	n	Variable							
		Sat/Exp[a]		Sat/Und[b]		Vuln/Und[c]		Pt/Reac[d]	
		M[e]	SD	M[e]	SD	M[f]	SD	M[g]	SD
Recent Treatment	46	2.11	0.85	1.78	0.76	3.63	1.48	12.57	1.47
Lengthy Treatment	25	2.12	0.83	1.64	0.76	3.76	1.92	11.52	1.19
Recovered	24	1.88	0.90	1.54	0.72	3.58	1.44	11.88	1.57
Terminal	7	2.57	0.98	2.00	1.41	6.86	2.12	10.86	1.35
Recently died	29	2.97	1.12	2.14	0.95	4.76	1.53	10.83	1.89
Died long ago	26	3.27	1.12	2.58	0.99	4.92	2.46	10.77	1.68

Note. Variables included are those correlated .40 or more with the significant discriminant functions for Patient Status groups. Comparisons are made by columns.

[a] Satisfaction with Expression. [b] Satisfaction with Understanding. [c] Vulnerability/Understanding. [d] Patient Reaction. [e] Higher mean indicates less satisfaction. [f] Higher mean indicates more agreement that this is a problem area. [g] Higher mean indicates less negative reaction.

correlations range from .30 to .40.

Examination of the group centroids for this function shows a "split" between those patients who were being treated or were recovered and those who were dying or had already died, on the basis of these variables. Group centroids for the recent treatment, lengthy treatment, and recovered groups are -.83, -.54, and -.51, respectively. For the terminal, recently deceased, and several-years deceased groups, centroids are .80, 1.03, and 1.09, respectively. Perusal of the means in Table 4 reveals that support persons of the dying or deceased patients are relatively less satisfied with their support on Emotional Expression, perceive that the patient is having or had a stronger negative reaction, feel more vulnerable in terms of empathy, and are relatively less satisfied with their support on Empathic Understanding. They are also younger. Obviously, an emotional component is operating to differentiate the groups. The possible influence of retrospective reporting must be kept in mind in interpreting these results.

The second function accounts for 16% of the variance ($\underline{R} = .39$, $\underline{\chi}^2 = 51.13$, $\underline{df} = 24$, $\underline{p} < .001$). Vulnerability/Empathic Understanding differentiates the terminal group from the other group, but the correlation of this variable with the function is not strong ($\underline{r} = .35$, $\underline{p} < .01$). This finding must be regarded with caution, since the terminal group is so small ($\underline{n} = 7$). The third function accounts for relatively little of the variance (9%), so that it cannot be interpreted ($\underline{R} = .31$, $\underline{\chi}^2 = 26.91$, $\underline{df} = 15$, $\underline{p} < .05$).

Prediction accuracy is 48%, which exceeds the chance value of 30%. This indicates that the functions have some predictive power.

Patient marital status. The groups include Married, Single, and Widowed. Means for the groups on significant discriminators are presented in Table 5. Two significant functions discriminate among the groups. The first function, which discriminates predominantly between the Single and Widowed groups, accounts for 79% of the variance ($\underline{R}$ = .67, χ^2 = 114.56, $\underline{df}$ = 18, $\underline{p} < .001$). Patient age is the only significantly correlated variable ($\underline{r}$ = .77, $\underline{p} < .01$). The Widowed group is considerably older than the Single group.

The second function primarily separates the Married group from the other two, accounting for 21% of the variance ($\underline{R}$ = .42, χ^2 = 28.66, $\underline{df}$ = 8, $\underline{p} < .001$). Patient sex is most highly correlated with this function ($\underline{r}$ = .53, $\underline{p} < .01$) and is accompanied by Personal Cost for Empathic Understanding ($\underline{r}$ = .49, $\underline{p} < .01$). Several other variables, including Satisfaction with Empathic Understanding and Personal Cost for Advice, Practical Help, and Emotional Expression, are correlated between .30 and .40 with the function. Examination of Table 5 indicates that the Widowed group includes more females than the other two groups. Support persons for the Married group are less concerned about time and dependency issues in giving support and feel more responsible than support persons for the other groups. This is particularly true in terms of being empathic. Support persons for the Married group are also more satisfied with their ability to understand the patient's experience. These findings probably represent the differences between the response of spouses and that of other more distant support persons to the support situation.

Prediction accuracy is 74.03%, greatly exceeding the chance level

TABLE 5

Means and Standard Deviations for Patient Marital Status Groups on Selected Variables

Group	n	PtSex[a]		Sat/Und[b]		PCost/Und[c]		PCost/Adv[d]		PCost/Help[e]		PCost/Exp[f]	
		M[g]	SD	M[h]	SD	M[i]	SD	M[i]	SD	M[i]	SD	M[i]	SD
Married	91	1.44	0.50	1.79	0.88	5.74	2.04	6.67	2.46	6.47	2.24	6.19	2.20
Single	32	1.59	0.50	2.19	0.97	6.59	2.43	7.75	2.57	7.25	2.46	6.53	2.53
Widowed	31	1.81	0.40	2.06	1.00	7.06	2.69	7.26	2.89	7.39	2.84	7.32	3.02

Note. Variables included are those correlated .30 or more with the significant discriminant functions for Marital groups. Comparisons are made by columns.

[a] Patient Sex. [b] Satisfaction with Understanding. [c] Personal Cost on Understanding. [d] Personal Cost on Advice. [e] Personal Cost on Help. [f] Personal Cost on Expression. [g] Higher mean indicates Female (M = 1, F = 2). [h] Higher mean indicates less satisfaction. [i] Higher mean indicates more agreement that this is a problem area.

of 53%. This indicates that the functions have considerable discriminating power.

Type of relationship. A major focus of this study was to assess the significance of the relationship with the patient for the support situation. Therefore, groups included in this analysis are Immediate Family, Relatives, and Friends.

For the analysis presented here, a reduced number of independent variables was used to avoid the problem of multicollinearity among the variables and to simplify interpretation of the results. The reduction involved using the three combined scales for the major support problems across types of support, rather than the scales for each type of support (e.g., Affect Arousal for all supports was used instead of Affect Arousal for Advice or for Practical Help). In addition, the specific scales tapping content material unique to each support dimension were not included (e.g., Vulnerability/Emotional Expression). However, the means for the specific scales are presented in Appendix H. The same procedure was followed for the analysis by Source groups presented in the next section.

Table 6 presents the results of the discriminant analysis for relationship groups. Discriminant weights for the selected predictor variables are available in Appendix G. It may be observed in Table 6 that the first function maximally discriminates the Immediate Family group from the other two, accounting for 63% of the variance ($\underline{R} = .69$, $\underline{\chi}^2 = 158.84$, $\underline{df} = 20$, $\underline{p} < .001$). The variable most highly correlated with this function is self involvement ($\underline{r} = .77$, $\underline{p} < .01$). Satisfaction with Practical Help is also a significant discriminator ($\underline{r} = -.51$, $\underline{p} <$

TABLE 6

Discriminant Analysis: Relationship Groups

Independent Variable	Structure Correlation Function 1	Structure Correlation Function 2
Self involvement	.77	+
Satis/Help[a]	-.51	.25
Personal Cost/Total[b]	-.42	.34
Satis/Companionship[c]	-.40	.33
Satis/Advice[d]	-.37	+
Satis/Understanding[e]	-.35	+
Instrumental during[f]	-.27	+
Subject age	.25	+
Instrumental desired[g]	-.24	+
Instrumental before[h]	+	+
Patient sex	+	+
Patient reaction	+	+
Number of relatives	+	+
Patient age	.22	.72
Task Ambiguity/Total[i]	-.22	.33
Satis/Expression[j]	-.23	.28
Emotional desired[k]	+	.28
Affect Arousal/Total[l]	+	.21
Interaction/relatives[m]	+	+
Emotional before[n]	+	+
Number of good friends	+	+
Subject sex	+	+
Emotional during[o]	+	+

Continued ...

TABLE 6 (Continued)

Discriminant Analysis: Relationship Groups

		Group Centroid	
Group	n	Function 1	Function 2
Immediate family	71	.99	-.24
Relatives	50	-.49	.99
Friends	36	-1.26	-.89
Canonical correlation:		.69	.57
Percent of variance:		63%	37%
χ^2:		158.84*	62.99*
df:		20	9

Note. Structure correlation refers to the correlation of each independent variable with the function. Correlations are significant at least at $p < .05$. + indicates a nonsignificant correlation. N = 157.

[a] Satisfaction with Practical Help. [b] Personal Cost across all supports. [c] Satisfaction with Companionship. [d] Satisfaction with Advice. [e] Satifaction with Empathic Understanding. [f] Instrumental support during illness. [g] Instrumental support desired by patient. [h] Instrumental support before illness. [i] Task Ambiguity across all supports. [j] Satisfaction with Emotional Expression. [k] Emotional support desired by patient. [l] Affect Arousal across all supports. [m] Interaction among relatives. [n] Emotional support before illness. [o] Emotional support during illness.

*$p < .001$.

.01). Of the support problems, Personal Cost is significantly related to the function ($r = -.42$, $p < .001$). Affect Arousal and Task Ambiguity are relatively poor discriminators. Three other satisfaction measures had some relation to the function.

An examination of the means for these variables, presented in Table 7, indicates that the Immediate Family group is more involved with the patient than the other groups; Friends are the least involved. Immediate family members are the most satisfied with their support overall, and relatives are the least satisfied. The exception to this is for advice-giving, for which friends feel the least satisfied. In terms of personal cost, the immediate family feels less concerned about time and dependency issues and more responsible for the patient than the other support persons. Relatives feel the most personal cost, being more concerned about time and dependency and feeling less responsible.

The second function discriminates between the Relatives and Friends groups, accounting for 37% of the variance ($R = .57$, $\chi^2 = 62.99$, $df = 9$, $p < .001$). Patient age is most discriminating ($r = .72$, $p < .01$), with patients described by relatives being older than those described by friends. Task Ambiguity and Satisfaction with Companionship discriminate somewhat but are not highly correlated with the function. The means in Table 7 indicate that relatives have more of a problem defining what they need to do to give support and are less satisfied with companionship than the other groups.

Classification accuracy is 76%, as presented in Table 8, which far exceeds the chance level of 45%. There is significant discriminating power in the functions.

TABLE 7

Means and Standard Deviations for Relationship Groups on Selected Variables

Relationship	n	Self[a] Involve		Satis/[b] Help		PCost/[c] Total		Satis/[d] Comp		Satis/[e] Advice		Satis/[f] Underst		TaskAm/[g] Total	
		M^h	SD	M^i	SD	M^j	SD	M^i	SD	M^i	SD	M^i	SD	M^j	SD
Immediate Family	71	4.34	1.12	1.44	0.65	22.58	7.82	1.59	0.75	2.11	0.93	1.62	0.74	31.63	10.91
Relatives	50	2.58	1.42	2.40	1.14	30.78	8.14	2.58	1.12	2.70	0.95	2.24	0.98	38.36	7.88
Friends	36	2.22	1.46	2.33	1.01	28.33	7.68	2.17	1.08	2.75	1.08	2.11	0.98	34.17	7.55

Note. Variables included are those correlated .30 or more with the significant discriminant functions for relationship groups. Comparisons should be made reading down the columns.

[a] Self involvement. [b] Satisfaction with Practical Help. [c] Personal Cost across all supports. [d] Satisfaction with Companionship. [e] Satisfaction with Advice. [f] Satisfaction with Empathic Understanding. [g] Task Ambiguity across all supports. [h] Higher mean indicates more involvement. [i] Higher mean indicates less satisfaction. [j] Higher mean indicates more agreement that this is a problem area.

TABLE 8

Discriminant Analysis: Classification into Relationship Groups

		Predicted Group Membership		
Actual Group	n	1	2	3
Immediate family	71	60	6	5
		84.5%	8.5%	7.0%
Relatives	50	10	35	5
		20.0%	70.0%	10.0%
Friends	36	7	4	25
		19.4%	11.1%	69.4%

Percent of grouped cases correctly classified: 76.4%

Source. Since the support persons in this study were obtained from quite different contexts, it was deemed essential to examine the role played by the source of the subjects. The University group, made up largely of students, and the Other group, made up of subjects from miscellaneous sources, are obviously different from the two clinic groups, Radiotherapy and Chemotherapy, who were involved in an immediate support situation.

Table 9 presents the results of the analysis. Discriminant weights for selected predictor variables are found in Appendix G. Means of specific scales are located in Appendix H. The first function separating the University group from the two clinic groups accounts for 89% of the variance ($R = .74$, $\chi^2 = 138.98$, $df = 15$, $p < .001$). Subject age is most highly correlated ($r = .76$, $p < .01$), with the University group being youngest. This is followed by self involvement ($r = .46$, $p < .01$). Other variables with significant though lower correlations include the support problems (Personal Cost, Task Ambiguity, and Affect Arousal), and several satisfaction measures (Companionship, Practical Help, and Advice). It may be observed by examination of the means in Table 10 that the support problems are greater for the University group and that satisfaction with support is less than for the other groups. The University group is also the least involved.

The second function discriminates the Other group from the remaining groups, particularly Chemotherapy, but accounts for only 11% of the variance ($R = .36$, $\chi^2 = 21.14$, $df = 8$, $p < .01$). The variable most highly correlated with the function is interaction among relatives ($r = -.53$, $p < .01$), followed by Affect Arousal ($r = .51$, $p < .01$) and

TABLE 9

Discriminant Analysis: Source Groups

Independent Variable	Structure Correlation Function 1	 Function 2
Subject age	.76	-.43
Personal Cost/Total[a]	-.37	.27
Satis/Companionship[b]	-.36	+
Task Ambiguity/Total[c]	-.36	.21
Satis/Help[d]	-.34	+
Satis/Advice[e]	-.33	+
Satis/Understanding[f]	-.27	+
Instrumental desired[g]	-.25	+
Satis/Expression[h]	-.24	+
Patient age	.20	+
Emotional desired[i]	+	+
Number of relatives	+	+
Number of good friends	+	+
Interaction/relatives[j]	+	-.53
Affect Arousal/Total[k]	-.35	.51
Emotional during[l]	+	.28
Patient sex	+	-.25
Instrumental during[m]	+	+
Subject sex	+	+
Instrumental before[n]	+	+
Emotional before[o]	+	+
Patient reaction	.31	.49
Self involvement	.46	+

Group	n	Group Centroid Function 1	 Function 2
Radiotherapy Unit	47	1.11	-.07

Continued ....

TABLE 9 (Continued)

Group	_n_	Group Centroid Function 1	Function 2
Chemotherapy Unit	28	.82	.55
University	62	-1.29	.06
Other	19	.25	-.83
Canonical correlation:		.74	.36
Percent of variance:		89%	11%
χ^2:		138.98**	21.14*
_df_:		15	8

Note. Structure correlation refers to the correlation of each independent variable with the function. Correlations are significant at least at $p < .05$. + indicates a nonsignificant correlation. _N_ = 156.

[a] Personal Cost across all support. [b] Satisfaction with Companionship. [c] Task Ambiguity across all supports. [d] Satisfaction with Practical Help. [e] Satisfaction with Advice. [f] Satisfaction with Empathic Understanding. [g] Instrumental support desired by patient. [h] Satisfaction with Emotional Expression. [i] Emotional support desired by patient. [j] Interaction among relatives. [k] Affect Arousal across all supports. [l] Emotional support during illness. [m] Instrumental support during illness. [n] Instrumental support before illness. [o] Emotional support before illness.

$*p < .01$; $**p < .001$.

TABLE 10

Means and Standard Deviations for Source Groups on Selected Variables

Source	n	PCost/[a] Total		Satis/[b] Comp		TaskAm/[c] Total		Satis/[d] Help		Satis/[e] Advice		Aff/Ar/[f] Total		PtReaction[g]		Self[h] Involve		Interaction/[i] Rels	
		M[j]	SD	M[k]	SD	M[j]	SD	M[k]	SD	M[k]	SD	M[j]	SD	M[l]	SD	M[m]	SD	M[n]	SD
Radiotherapy Unit	47	22.55	8.03	1.66	0.76	31.02	8.20	1.47	0.72	2.06	0.82	22.79	6.76	12.15	1.59	3.94	1.45	2.32	0.69
Chemotherapy Unit	28	25.75	8.72	1.89	0.99	33.82	10.86	1.68	0.90	2.14	0.71	26.43	11.71	12.32	1.19	4.00	1.39	2.11	0.74
University	62	29.69	7.26	2.47	1.13	38.26	8.38	2.50	1.13	2.92	1.01	30.18	7.14	11.02	1.63	2.42	1.39	2.53	0.69
Other	19	26.89	10.82	1.84	1.01	29.84	10.71	1.74	0.65	2.16	1.12	22.32	7.21	10.95	2.01	3.42	1.74	2.68	0.67

Note. Variables included are those correlated .30 or more with the significant discriminant functions for Source groups. Comparisons should be made by reading down the columns.

[a] Personal Cost across all supports. [b] Satisfaction with Companionship. [c] Task Ambiguity across all supports. [d] Satisfaction with Practical Help. [e] Satisfaction with Advice. [f] Affect Arousal across all supports. [g] Patient reaction to illness. [h] Self involvement. [i] Interaction among relatives. [j] Higher mean indicates more agreement that this is a problem area. [k] Higher mean indicates less satisfaction. [l] Higher mean indicates less negative patient reaction. [m] Higher mean indicates more involvement. [n] Higher mean indicates more interaction among patient's relatives.

patient reaction ($\underline{r} = .49$, $\underline{p} < .01$). Subject age is also related ($\underline{r} = -.43$, $\underline{p} < .01$). An examination of the means in Table 10 shows that support persons in the Other group report a greater amount of interaction among the patient's relatives than the Chemotherapy group and relatively fewer difficulties with affect arousal. Support persons in the Other group are also older.

Classification accuracy is 65%, as presented in Table 11, far exceeding the chance proportion of 39%.

Canonical Correlation Analyses

Canonical correlation analysis is used when there is more than one dependent measure to be analyzed at a time. The general objectives of canonical analysis are to determine the magnitude of the relationship between two sets of variables, to derive linear combinations of the variables that are maximally correlated, and to explain the nature of the relationships between the two sets of variables by looking at the relative contributions of each variable to the functions (Hair et al., 1979). As with discriminant analysis, using correlations of the variables with the functions to interpret relationships is preferable to use of canonical weights generated for the best prediction. Thus, the analyses presented here will focus on the correlations. The canonical weights for certain analyses are provided in the Appendices.

The significance of the functions generated can be assessed in several ways, including examination of the size of the canonical correlation ($\underline{R}$) between the two sets of variables; the level of significance of the function, usually based on a Chi-square test; and

TABLE 11

Discriminant Analysis: Classification into Source Groups

Actual Group	n	Predicted Group Membership 1	2	3	4
Radiotherapy Unit	47	33 70.2%	4 8.5%	8 17.0%	2 4.3%
Chemotherapy Unit	28	14 50.0%	9 32.1%	4 14.3%	1 3.6%
University	62	2 3.2%	2 3.2%	55 88.7%	3 4.8%
Other	19	8 42.1%	0 0.0%	7 36.8%	4 21.1%

Percent of grouped cases correctly classified: 64.7%.

the redundancy measure of shared variance, which indicates how well the set of predictor variables explains variation in the criterion variables. The percent of overall variance accounted for by the function also provides an indication of its significance. All of these statistics will be provided.

The first canonical analyses to be presented are those for which the three scales measuring support problems across types of support were the dependent variables. Predictors included certain contextual variables and the satisfaction measures. These analyses were performed on the total group of subjects, for the groups divided by type of relationship, and for three of the source groups. (The Other group in the source category could not be analyzed, since the number of variables exceeded the number of subjects in the group).

The second set of analyses utilized the satisfaction measures as dependent variables. Predictors included certain contextual variables and the three support problem scales. Analyses were done on the same groups. It should be noted that the categorical variables used in the discriminant analyses could not be included.

Total group: Correlates of support problems. This is a major analysis exploring the variables that may influence problems in giving support. Table 12 presents the results of this analysis. Canonical weights for the variables are available in Appendix K. One significant function accounts for 74% of the overall variance ($\underline{R} = .69$, $\underline{\chi}^2 = 136.11$, $\underline{df} = 63$, $\underline{p} < .001$). The predictors account for 29% of the variance in the support problems. All three support problems are correlated with the functions, with Personal Cost ($\underline{r} = -.88$, $\underline{p} < .01$) and Task Ambiguity

TABLE 12

Canonical Analysis with Support Problems as Dependent Variables: All Subjects

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	+
Subject age	.51
Patient age	+
Patient sex	+
Patient reaction	.28
Number of good friends	+
Number of relatives	-.37
Interaction/relatives[a]	+
Self involvement	.62
Instrumental before[b]	+
Emotional before[c]	+
Instrumental during[d]	-.37
Emotional during[e]	+
Instrumental desired[f]	-.35
Emotional desired[g]	+
Satis/Companionship[h]	-.77
Satis/Understanding[i]	-.58
Satis/Practical Help[j]	-.72
Satis/Expression[k]	-.55
Satis/Advice[l]	-.61
Dependent Variable	Variate 2
Affect Arousal/Total[m]	-.57
Task Ambiguity/Total[n]	-.87
Personal Cost/Total[o]	-.88
Proportion of redundancy:	29%
Canonical correlation:	.69
Percent of variance:	74%
χ^2:	136.11*
df:	63

Continued ...

TABLE 12 (Continued)

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .05$. + indicates a nonsignificant correlation. $N = 157$.

[a]Interaction among relatives. [b]Instrumental support before illness. [c]Emotional support before illness. [d]Instrumental support during illness. [e]Emotional support during illness. [f]Instrumental support desired by patient. [g]Emotional support desired by patient. [h]Satisfaction with Companionship. [i]Satisfaction with Empathic Understanding. [j]Satisfaction with Practical Help. [k]Satisfaction with Emotional Expression. [l]Satisfaction with Advice. [m]Affect Arousal across all supports. [n]Task Ambiguity across all supports. [o]Personal Cost across all supports.

$^*p < .001$.

(r = -.87, $p<.01$) being considerably more significant than Affect Arousal (r = -.57, $p<.01$). Much of the relationship between the sets of variables comes from the satisfaction measures, particularly for Companionship (r = -.77, $p<.01$) and Practical Help (r = -.72, $p<.01$). Self involvement is also highly correlated with the function (r = .62, $p<.01$). The support system variable representing number of relatives and two relationship quality variables involving instrumental support are moderately correlated with the function.

The overall pattern is that for the total group of subjects, fewer support problems are associated with more satisfaction in all areas of support. This is particularly true for older, more involved support persons. This pattern may occur when fewer relatives are available to support the patient, or when the relationship or the type of support desired by the patient are instrumental.

Relationship groups: Correlates of support problems. Analyses by relationship groups were of particular interest, since the study focused on the possible differences among family and friends in giving support. The analyses for these separate groups revealed somewhat different associations among the variables than those for the total group. The results of these three analyses are presented in Appendix I.

For the Immediate Family group, a marginally significant relationship exists between the two sets of variables, accounting for 51% of the overall variance (R = .69, χ^2 = 77.60, df = 63, $p<.10$). The predictors account for 10% of the variance in the support problems. The only support problem to emerge is Personal Cost (r = .77, $p<.01$).

One of the relatively significant predictors is a relationship quality variable representing instrumental support during the illness, although the correlation with the function is not high ($\underline{r} = .40$, $p < .01$). Instrumental support desired by the patient is also moderately correlated. Subject age has some relationship with the function, but self involvement is not a significant predictor. (This does not imply that immediate family members are not involved; as noted earlier, they are the most involved). Of the satisfaction measures, only Satisfaction with Practical Help is moderately correlated with the function. Number of relatives of the patient is also moderately correlated.

The overall picture suggests that relatively more personal cost issues are experienced by members of the immediate family who tend to be younger or who are not involved in giving instrumental support to the patient. These support persons may not be satisfied with the practical help they have given the patient. There may be more support available from other relatives in this situation.

For the Relatives group, a marginally significant relationship exists between the sets of variables, accounting for 62% of the overall variance ($\underline{R} = .83$, $\underline{\chi}^2 = 77.54$, $\underline{df} = 63$, $\underline{p} < .10$). The predictor variables account for 28% of the variance in the support problems. Task Ambiguity and Personal Cost are salient support problems ($\underline{r} = .80$, $\underline{p} < .01$, $\underline{r} = .74$, $\underline{p} < .01$, respectively), but Affect Arousal is not. All of the satisfaction measures are correlated with support problems, particularly Satisfaction with Companionship ($\underline{r} = .71$, $\underline{p} < .01$). Patient reaction is also a significant predictor ($\underline{r} = -.46$, $\underline{p} < .01$). Number of relatives of the patient is moderately correlated, as is one relationship quality variable representing emotional support during the illness.

The pattern indicated is that for the relatives of the patient, more support problems related to definition of the task and personal cost occur in the presence of less satisfaction with all types of support, especially being a companion. These difficulties emerge in the presence of a stronger negative reaction to the illness on the patient's part, especially if the relationship involves emotional support. The presence of more relatives may also increase the problems experienced, perhaps making it more difficult to define one's role.

For the Friends group, a significant relationship exists between the sets of variables, accounting for 77% of the variance ($\underline{R} = .94$, $\underline{\chi}^2 = 82.62$, $\underline{df} = 63$, $\underline{p} < .05$). The predictor variables account for 61% of the variance in the support problems. Overall relationships more closely parallel those of the total group of subjects. All three support problems are salient, with Task Ambiguity being the most highly correlated with the function ($\underline{r} = .93$, $\underline{p} < .01$). All of the satisfaction measures are correlated, and Satisfaction with Practical Help is particularly significant ($\underline{r} = .73$, $\underline{p} < .01$). Self involvement is associated with support problems for friends ($\underline{r} = -.55$, $\underline{p} < .01$), as is subject age ($\underline{r} = -.43$, $\underline{p} < .01$). Other variables that are less highly correlated include patient sex, patient reaction, number of good friends of the patient, and emotional support desired by the patient.

For friends, more problems in all areas, particularly with defining the support task, are associated with less satisfaction, especially with practical help. This may occur particularly for the friend who is younger or less involved with the patient. When the patient is male, reacting more negatively to the illness, or desiring emotional support, these problems are enhanced. The size of the patient's circle of good friends also may influence the experience of problems, with more friends apparently making the task of support more difficult.

Source groups: Correlates of support problems. A concern of the study was to understand how relationships among the variables might differ depending upon the source of the subjects. Different patterns did emerge for the three source groups that could be analyzed. The results of these analyses are presented in Appendix I.

The data for the Radiation group were not significant (R = .81, χ^2 = 75.69, df = 63, p =.13), making any interpretation questionable. A few descriptive statements are given to stimulate sensitivity to problem definition for future studies. The predictor variables account for 10% of the variance in the support problems. Overall relationships are relatively low, with Personal Cost emerging as the only support problem (r = -.57, $p < .01$). Patient sex, Satisfaction with Companionship, and certain relationship quality variables, particularly emotional support before the illness, are predictors most correlated with the function. More sense of responsibility for giving support and less concern about time commitment and dependency are found when the patient is male or when the relationship is not characterized as being either instrumental or emotional. Also, the support person may experience some satisfaction with companionship. Again, however, these associations must be viewed with caution, because of the lack of significance of the function.

For the Chemotherapy group, a marginally significant relationship exists between the sets of variables, accounting for 86% of the overall variance ($\underline{R} = .98$, $\underline{\chi}^2 = 77.74$, $\underline{df} = 63$, $p < .10$). The predictor variables account for 53% of the variance in the support problems. The results must be viewed with caution, however, because of the small number of subjects ($\underline{n} = 28$) in relation to the number of variables. All three support problems are salient, with Personal Cost being the most significant ($\underline{r} = -.99$, $\underline{p} < .01$). Several relationship quality variables, reflecting a relationship characterized by instrumental support, are the most significantly correlated predictors, ranging from -.53 to -.65 ($\underline{p} < .01$). Subject age and sex are also related to the function. Interaction among the patient's relatives, Satisfaction with Companionship, and Satisfaction with Emotional Expression are correlated, but moderately so.

For this group, fewer support problems are associated with a more instrumental relationship, or with a support person who is older or female. This may occur in the presence of more interaction among the patient's relatives, suggesting that there may be a sharing of support which eases the task. These support persons may also experience satisfaction with companionship or with their efforts to listen to the patient's feelings.

For the University group, there is a significant relationship between the sets of variables, accounting for 55% of the overall variance ($\underline{R} = .79$, $\underline{\chi}^2 = 99.65$, $\underline{df} = 63$, $p < .01$). The predictor variables account for 38% of the variance in the support problems. All three support problems are salient, particularly Task Ambiguity ($\underline{r} = .97$, $\underline{p} < .01$). The satisfaction measures are significantly related to the problem areas, particularly Satisfaction with Companionship ($\underline{r} = .73$, $\underline{p} < .01$). Self involvement is also a critical variable in support problems for this group ($\underline{r} = -.58$). To a lesser degree, subject age and number of relatives of the patient contribute to the function. This analysis somewhat more closely parallels that for the total group.

The pattern suggests that more support problems are associated with less satisfaction in all areas. This may be particularly true for younger support persons or those who are less involved with the patient, which is probably the most common situation for the University students. Problems may also be associated with a larger number of available relatives, suggesting that the students, many of whom are friends, may rely upon relatives to take responsibility for support.

Total group: Correlates of satisfaction. This is a major analysis assessing the relationship of certain contextual variables and support problems to satisfaction with support. Table 13 presents the results of this analysis. Relationships between the two sets of variables are described by two significant functions. The first function accounts for 49% of the overall variance ($\underline{R} = .74$, $\underline{\chi}^2 = 255.91$, $\underline{df} = 95$, $\underline{p} < .001$), with the predictors accounting for 31% of the variance in the satisfaction measures. All of the satisfaction measures are correlated with the function, particularly Satisfaction with Companionship, Practical Help, and Advice ($\underline{r} = .85$, $\underline{p} < .01$; $\underline{r} = .85$, $\underline{p} < .01$; $\underline{r} = .74$, $p < .01$, respectively). Of the predictor variables, Task Ambiguity ($\underline{r} = .73$, $\underline{p} < .01$) and Personal Cost ($\underline{r} = .71$, $\underline{p} < .01$) are highly correlated with the function. Self

TABLE 13

Canonical Analysis with Satisfaction Measures as Dependent Variables: All Subjects

Independent Variable	Structure Correlation	
	Function 1	Function 2
	Variate 1	Variate 1
Subject sex	+	+
Subject age	-.68	+
Patient age	+	+
Patient sex	+	+
Patient reaction	-.26	-.32
Number of good friends	+	+
Number of relatives	.24	+
Interaction/relatives[a]	+	.20
Self involvement	-.72	+
Instrumental before[b]	+	-.41
Emotional before[c]	+	.34
Instrumental during[d]	.39	-.49
Emotional during[e]	+	.56
Instrumental desired[f]	.33	-.37
Emotional desired[g]	+	.45
Affect/Arousal/Total[h]	.50	+
Task Ambiguity/Total[i]	.73	+
Personal Cost/Total[j]	.71	+
Dependent Variable	Variate 2	Variate 2
Satis/Companionship[k]	.85	-
Satis/Understanding[l]	.68	.40
Satis/Practical Help[m]	.85	-.22
Satis/Expression[n]	.63	.70
Satis/Advice[o]	.74	-.21

Continued ...

TABLE 13 (Continued)

	Function 1	Function 2
Proportion of redundancy:	31%	6%
Canonical correlation:	.74	.66
Percent of variance:	49%	31%
χ^2:	255.91*	144.30*
df:	95	72

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .05$. + indicates a nonsignificant correlation. $N = 157$.

[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotionalsupport desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with Companionship. [l] Satisfaction with Empathic understanding. [m] Satisfaction with Practical Help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p < .001$.

involvement and subject age are also quite significant ($r = -.72$, $p < .01$; $r = -.68$, $p < .01$, respectively). Affect Arousal is correlated, but is relatively less important. Two relationship quality variables having to do with instrumental support are somewhat correlated with the function.

The first function indicates that less satisfaction with all types of support, particularly instrumental types, may be strongly associated with more perceived difficulties with task ambiguity or personal cost in giving support. This is particularly true for the younger or less involved support person. Arousal of negative feelings is somewhat of a problem, but interferes less with giving support than the other two problem areas. As might be expected, less satisfaction with instrumental support is found in relationships that are not characterized by this type of support.

The second function accounts for 31% of the overall variance ($R = .66$, $\chi^2 = 144.30$, $df = 72$, $p < .001$), with the predictors accounting for only 6% of the variance in the satisfaction measures. Satisfaction with Emotional Expression is most highly correlated with the function ($r = .70$, $p < .01$) and Satisfaction with Empathic Understanding is moderately correlated ($r = .40$, $p < .01$). Satisfaction with instrumental supports are not significantly related. Several relationship cuality variables account for most of the relationship with the satisfaction measures. Patient reaction is somewhat correlated. The three problem scales are not related to satisfaction in this case.

The function indicates that less satisfaction with emotional supports can be associated with certain relationship qualities or the desired support of the patient. If the relationship is more instrumental than emotional, or the patient desires instrumental rather than emotional support, there is less satisfaction with emotional support, perhaps because it is not occurring when the support person perceives that it should be. Since this pattern also may occur in the presence of a stronger negative patient reaction, the support person may indeed feel that his or her support is inadequate in the emotional sphere.

Relationship groups: Correlates of satisfaction. The results of these analyses are presented in Appendix J. For the Immediate Family, there is a significant relationship between the two sets of variables, accounting for 39% of the overall variance ($R = .73$, $\chi^2 = 128.98$, $df = 95$, $p < .01$). The predictors account for 28% of the variance in the satisfaction measures. All of the satisfaction variables are salient, particularly Satisfaction with Companionship ($r = .82$, $p < .01$), with Emotional Expression ($r = .82$, $p < .01$), and with Empathic Understanding ($r = .79$, $p < .01$). The predictor accounting for the most variance is self involvement ($r = -.66$, $p < .01$), followed by subject age ($r = -.44$, $p < .01$). One type of support problem, Task Ambiguity, is relatively important ($r = .46$, $p < .01$). Personal Cost is related but not strongly. Several relationship quality variables are also somewhat related to the function.

For this group, relatively less satisfaction with all types of support is found for less involved support persons or those who are younger. Notably, less satisfaction with emotional types of support and companionship may tend to occur when the patient has more of a negative reaction to the illness. Task ambiguity is more of a problem than any other, perhaps reflecting the difficulty of knowing how to give emotional support to a distraught patient. Finally, this pattern may occur in relationships that were not emotionally-oriented before the illness or are not characterized as being either emotional or instrumental during, perhaps reflecting the overall low involvement.

For the Relatives group, a significant relationship exists between the two sets of variables, accounting for 42% of the overall variance ($\underline{R}$ = .83, $\underline{\chi}^2$ = 124.71, $\underline{df}$ = 95, $\underline{p} < .05$). The predictors account for 21% of the variance in the satisfaction measures. Of the satisfaction variables, only satisfaction with instrumental types of support is salient: Satisfaction with Companionship ($\underline{r}$ = .73, $\underline{p} < .01$), with Practical Help ($\underline{r}$ = .76, $\underline{p} < .01$), and with Advice ($\underline{r}$ = .59, $\underline{p} < .59$). One relationship quality variable, reflecting instrumental support during the illness, is most related to satisfaction ($\underline{r}$ = .61, $\underline{p} < .01$). Among the support problems, Task Ambiguity is salient ($\underline{r}$ = .58, $\underline{p} < .01$). Affect Arousal is somewhat related but not strongly. Other related variables include subject age and two other relationship quality measures.

The overall pattern that emerges for the Relatives group is that relatively less satisfaction with companionship, practical help, and advice may be associated with relationships that are less instrumental or more emotional during the illness. In this case, the relationship may not have been perceived as being instrumental before, either. This pattern may occur particularly for younger people. The major support problem related to less satisfaction in these areas is task ambiguity, or not being sure what to do. It appears that in a relationship that has not been instrumentally-oriented, relatives are not satisfied with their ability to give this kind of support because they are not sure what to do.

For the Friends group, there is a significant relationship between the two sets of variables, accounting for 38% of the overall variance ($R = .90$, $\chi^2 = 125.16$, $df = 95$, $p < .05$). The predictors account for 23% of the variance in the satisfaction measures. As with the Relatives group, only the three instrumental satisfaction variables are salient: Satisfaction with Companionship ($r = .61$, $p < .01$), with Practical Help ($r = .77$, $p < .01$), and with Advice ($r = .63$, $p < .01$). Satisfaction with emotional supports does not account for any of the relationship between the sets of variables. Several relationship quality variables are significantly related to the function, particularly one reflecting instrumental support desired by the patient ($r = .47$, $p < .01$). All three of the support problem areas are related, particularly Task Ambiguity ($r = .47$, $p < .01$). Subject age and self involvement are also moderately related to the function.

For the Friends group, relatively less satisfaction with instrumental support may be associated with task ambiguity, or with a relationship that is emotionally-oriented rather than instrumentally-oriented. The patient may be perceived as desiring emotional support rather than instrumental support, perhaps suggesting that the patient's needs for instrumental aid are not clearly communicated to the friend in this case. Personal cost and affect arousal may be related to lower satisfaction, but to a lesser degree. This pattern may occur for predominantly for younger or less involved friends.

Source groups: Correlates of satisfaction. The results for these analyses are somewhat less clear than for those based upon the Relationship groups, since overall the relationships between the two sets of variables are not as significant. Appendix J contains the findings.

For the Radiotherapy group, a nonsignificant relationship exists between the two sets of variables ($\underline{R} = .84$, $\underline{\chi}^2 = 111.59$, $\underline{df} = 95$, $\underline{p} = .12$). The predictors account for 10% of the variance in the satisfaction measures. While interpretations must be made cautiously, a brief description of the relationships will be provided. Relatively more satisfaction with companionship and emotional expression ($\underline{r} = -.56$, $p < .01$; $\underline{r} = -.49$, $p < .01$, respectively) and relatively less satisfaction with practical help ($\underline{r} = .36$, $\underline{p} < .05$) are associated more strongly with the patient having more good friends available ($\underline{r} = .55$, $\underline{p} < .01$). Several relationship quality variables also contribute to the function, indicating that this pattern of satisfaction may occur in a relationship that is not strongly characterized as being either instrumental or emotional, or in which the patient desires more emotional interaction. No support problems are related to satisfaction in this case.

For the Chemotherapy group, a marginally significant relationship exists between the two sets of variables, accounting for 60% of the overall variance ($R = .97$, $\chi^2 = 116.78$, $df = 95$, $p < .10$). The predictors account for 13% of the variance in the satisfaction measures. The results must be viewed with caution, given the small number of subjects in relation to the number of variables ($n = 28$). Satisfaction with Empathic Understanding ($r = -.62$, $p < .01$) and with Companionship ($r = .44$, $p < .05$) are most salient; other satisfaction variables are not significantly related to the function. Among the predictors, only patient age is significantly correlated ($r = .52$, $p < .01$). Patient sex and subject sex are marginally related. For this group, more satisfaction with understanding and less with companionship may be associated with relationships in which patients are older or female, or in which support persons are males. Again, support problems do not seem to relate to satisfaction here.

For the University group, a significant relationship exists between the sets of variables, accounting for 50% of the overall variance ($R = .84$, $\chi^2 = 149.44$, $df = 95$, $p < .001$). The predictors account for 11% of the variance in the satisfaction measures. Satisfaction with Emotional Expression is most salient ($r = .62$, $p < .01$). Satisfaction with Practical Help and with Advice are related to the function, but considerably less so. The only predictor variables that emerge are relationship quality variables, with the most significant of these being related to emotional support during the relationship ($r = .68$, $p < .01$). The overall picture suggests that less satisfaction with emotional expression and relatively more satisfaction with practical help and advice may be found in relationships which are characterized by instrumental support and not by emotional support.

Multiple Regression Analyses

Several multiple regression analyses were done to further clarify which of the variables best predict the problem areas in giving support. They were given relatively less attention than the other analyses, since the canonical analyses are more appropriate for examining the relationships among a number of intercorrelated dependent and independent measures.

Stepwise multiple regression analyses were performed using the three measures of support problems across support types (Affect Arousal Total, Task Ambiguity Total, and Personal Cost Total), since these were a major focus of the study. In addition, regressions were done for the specific scales with content unique to each support type (Vulnerability/Empathic Understanding; Communication/Empathic Understanding; Feelings/Advice; Beliefs/Emotional Expression; Vulnerability/Emotional Expression; and Physical Help/Practical Help), since these scales had not been utilized in the major analyses. The maximum number of independent variables allowed into the equations was 10 (tolerance = .001, *F*-to-enter = 2.0). Results are presented in Appendix L.

For the support problems across support types, prediction is significant, with multiple correlations ranging from .47 to .60. Task Ambiguity and Personal Cost are somewhat better predicted than Affect Arousal. Overall, variables chosen for prediction are similar across problem areas. They include certain demographic variables, self involvement, certain satisfaction measures, patient reaction, and two support system variables having to do with number of relatives and the degree of interaction among them.

For the specific scales, prediction is somewhat less strong and more varied, with multiple correlations ranging from .39 to .59. The scales for Vulnerability/Emotional Expression, Vulnerability/Empathic Understanding, and Communication/Empathic Understanding are more related to the predictor variables than are the scales for Beliefs/Emotional Expression, Physical Help/Practical Help, and Feelings/Advice. While there is some variation as to what predictors appear for each scale, some patterns emerge. Self involvement and certain demographic characteristics appear to be consistently significant. As well, patient reaction and certain support system characteristics emerge often. Relationship quality variables appear but are more scattered.

CHAPTER IV

DISCUSSION

This study was designed to examine some of the problems faced by family members and friends of cancer patients. Much has been written on this topic but it is almost all anecdotal. The first objective was to identify some of the broader dimensions underlying specific support problems in order to develop an instrument to tap these dimensions. The second objective was to find out if support problems differ in their saliency for different types of support. The third objective was to explore the correlates of support problems and of satisfaction with support given.

Each of these three objectives will be addressed in this chapter. Attention will also be given to the quality of support as this is defined in terms of type of support. In brief, the study dealt with relationships among types of problems, types of support, and mediating factors.

Before discussing these objectives, some comments seem necessary regarding the multidimensional approach to support underlying this study. A criticism often made is that social support has been treated as a unidimensional or global concept. To deal with this criticism, Gottlieb (1978) developed a classification scheme of types of support based on an analysis of interview protocols: emotionally-sustaining behaviors, problem-solving behaviors, indirect personal influence, and environmental action. There are some parallels between these types of informal support and the five dimensions used in the present study, which were derived from a literature review.

The findings regarding types of support in the present study are somewhat equivocal. Few differences were found in the relative saliency of different problem areas as a function of support type, so that for most analyses, problems were dealt with across all supports rather than separately. It appears that people may perceive the same kinds of problems in different support domains (e.g., task ambiguity may be a common problem independent of content). Another possibility is that the similarities of problems across types of support are due to a "halo effect". Assessment of the accuracy of these interpretations goes beyond the scope of this study, however. It should be noted that there is no suggestion being made that the content of the support domain is unimportant. Using satisfaction as a dependent measure, considerable differences were found in the level of prediction obtained with the three support problem dimensions.

Development of the Support Questionnaire

The factor analytic data served to reinforce the conceptual framework for classifying the various problems in giving support. The dimensions isolated by this technique provided the basis for the scales included in the self-report instrument. Three problem dimensions emerged: Affect Arousal, Task Ambiguity, and Personal Cost. The difficulties of support persons seem to center around negative emotional reactions to the situation, uncertainty as to how to give support, and an assessment of the personal costs of involvement with the patient.

The items were based upon a quite comprehensive review of the literature and seemed to reflect a large part of the domain that has been studied previously. However, no claim is being made that the scales represent an exhaustive list of problems. Some problems rather unique to specific support domains emerged but were largely ignored in order to limit the number of variables under investigation. Such problems as vulnerability and communication, however, may be promising areas for more in-depth exploration.

The support questionnaire, hopefully, will be useful for tapping the actual experiences of support persons in a more rigorous manner than earlier anecdotal methods.. Demographic and contextual categories permit the analyses of support problems faced by various groups of support persons. The questionnaire is easy to administer and takes relatively little time to complete. With some refinement and the elimination of redundant items, it could be an even more practical instrument.

The psychometric properties of this instrument are encouraging, considering its relative uniqueness as a problems-oriented approach to social support. The alpha reliabilities of the scales tapping Task Ambiguity, Affect Arousal and Personal Cost are quite satisfactory. Further data are needed, such as test-retest reliability, in order to estimate the stability of the responses over time. Some effort should also be given to reducing the level of intercorrelations among the three basic scales, which are moderate. However, these correlations are not so high as to limit seriously their usefulness for differential prediction.

The validity of the support questionnaire requires much more intensive examination. However, in a broad sense, the data generated by this instrument provide some indirect evidence. Preliminary evidence for construct validity is found by confirmation of some of the implicit predictions underlying the study. Significant correlations in the expected direction were found between the scales and the measures of satisfaction. For all types of support, the more the problems experienced by support persons, the less the satisfaction with the support given. Much of this consistency is due, of course, to methods variance. Independent measures outside of the self-report instrument are needed.

The results of discriminant analyses also provide some indirect evidence for the validity of this instrument. Differences were found, for instance, between family, relatives, and friends. Though the results are still tentative, the data suggest that the questionnaire is measuring dimensions along which different groups of support persons can be located.

Differences in Problems by Support Type

Little support was obtained for the expectation that the kinds of problems that support persons face vary with the type of support. Differential effects were found for the three problem areas: Affect Arousal, Task Ambiguity, and Personal Cost. However, the observed differences are approximately the same across all types of support.

Task Ambiguity was significantly related to all support types, and it appeared to be the most serious problem for three of the four. Personal Cost was related to all supports except for Empathic Understanding, and it was the most salient problem in terms of Practical Help. By way of contrast, Affect Arousal was related to only one type of support, which was Advice and Guidance.

The relatively low weight received by Affect Arousal as a support problem is inconsistent with some of the literature reported earlier. Largely anecdotal data suggest that interaction with cancer patients carries many threatening implications that operate to inhibit support. The quantitative data of the present study suggest, instead, that the major problem involves not knowing what to do (e.g., lack of guidelines or lack of clarity of the task). Moreover, personal costs are also more important (e.g., costs in terms of time, patient dependency, and responsibility issues).

An interpretation could be made in terms of attributional biases to explain differences in the perceived importance of different problem areas. A common finding is that people look for the causes of a problem in the situation rather than within themselves. Attribution theory would suggest that the problems are perceived as originating from outside rather than from inside. Task ambiguity problems and personal cost issues reflect less upon the integrity of the person than do affect problems. To suggest that emotional reactions to cancer inhibit support given is a reflection of one's sense of personal competence and stability. Whether the lesser significance attached to affect arousal reflects social desirability in filling out the questionnaire or the operation of defense mechanisms is beyond the scope of this study.

An unexpected finding was obtained regarding advice-giving. Intuitively, one would expect that advice-giving is less complex and less psychologically demanding than a task such as empathic understanding. Yet, the results indicate that people have considerable problems with advice-giving. There are several possible reasons for this finding. Advice-giving is a much more action-oriented activity, subject to both personal and external verification. It also requires clarity of definition, information, and knowledge, unlike more "experiential" types of support, such as understanding, which may operate as undefined feelings within the support person. As well, it has been noted that advice-giving is not always appreciated by the patient (Dunkel-Schetter, 1982), so that the support person may not be getting positive reinforcement. Finally, it is possible that advice-giving is more clearly defined in the minds of most support persons than are more emotional types of support; people may simply be more aware of difficulties in this area and more able to express them.

Relationships Among Support Problems, Satisfaction, and Context

The third objective was to explore the correlates of support problems and of satisfaction with support. This involved an assessment of the relative importance of certain contextual variables in the support situation. Several categories of variables were investigated, including physical, demographic, psychological, social, and situational aspects.

Physical Aspects

The results indicated a minimal relationship between disease characteristics, support problems, and satisfaction. This finding parallels those of Dunkel-Schetter (1982) who found few relationships between disease characteristics and support variables. The major discriminating variables for type of cancer and treatment in the present study were demographic, such as age and sex. Spread of the disease was not related to any contextual measures. The exception was for patient disease status, for which differences were found in satisfaction with emotional types of support, and in vulnerability related to empathy.

Overall, disease characteristics were not found to be particularly salient, but it cannot be concluded that they are not important to the support situation. Control over such factors as stage and seriousness of the disease was not attempted, partly because of the focus of the study and partly because of the sample size. Also, the nature of measurement for these variables precluded certain analyses, since they were all measured categorically.

Demographic Aspects

Both the demographic characteristics of the support person and of the patient were of interest. Few significant differences were noted, except for the support person's age and the marital status of the patient. The support person's sex had little bearing on either problems or satisfaction. Patient age and sex largely were related to disease characteristics but not to problems or satisfaction.

Younger support persons experienced more problems in all areas and were less satisfied with the support they had given. They also tended to be less involved with the patient. These results are not surprising; younger people probably have less exposure to cancer and would not be expected to be able to give as much support as older people. It should be noted that the younger support persons largely came from the University sample and were removed from the support situation.

Results on patient marital status underline the importance of different types of relationships in the support process. Support persons of married patients, presumably spouses in most cases, felt more responsibility and were less concerned about the consequences of involvement. This was in contrast to the support persons of single or widowed patients.

Psychological Aspects

Two contextual variables that deal with the inner experiences of the patient and the support person are the emotional reactions of the patient to the disease and the support person's perception of his or her involvement with the patient. Both of these variables were found to be related to support problems and satisfaction.

Much of the literature has emphasized the cancer patient's emotional reactions to the disease, such as depression. It would seem that negative reactions would operate as stressors to the support person and possibly interfere with support. Some evidence was found for this, although it was limited. The patient's reaction was not found to be strongly related to support problems for the sample as a whole, but stronger associations emerged when the type of relationship was taken into account. Reaction was important for relatively younger immediate family members and friends, and for relatives without the association of age. In all cases, more patient reaction was related to less satisfaction and more problems in giving support.

It appears that for some support persons, particularly those who are younger and more distant from the patient, the patient's negative reactions may cause feelings of incompetency and dissatisfaction. As well, these reactions may be upsetting for them. Older, more closely-related support persons may be less likely to take the patient's reactions personally.

Self involvement was found to be a key variable. Lower involvement was consistently associated with more problems in all areas of support and with less satisfaction. Younger support persons and those more distantly related to the patient were found to be less involved. Since self involvement was strongly associated with the type of relationship, its implications will be discussed more fully in the section dealing with type of relationship.

Social Aspects

The social context in which support takes place was examined in terms of the structural features of the patient's support system, the quality of the relationship between the patient and the support person, and the type of relationship. Each of these will be discussed below.

Structural characteristics. Structural characteristics included the number of good friends available to the patient, the number of relatives available to the patient, and the degree of interaction among the relatives. Little significance was found for the degree of interaction. However, for the number of friends and relatives, some trends were observed. A higher number of relatives and friends being available in the patient's community was associated with more support problems, particularly for younger support persons. The problems noted centered around task ambiguity and personal cost.

These results have some important implications. Other studies have noted that in terms of density, "more" is not necessarily "better" for the person receiving support (Hirsch, 1979, 1980; Walker et al., 1977; Wilcox, 1981). The same may be true of the effect of density on the support person. One explanation may be made in terms of support mobilization. Perhaps it is more difficult for the support person to know his or her responsibilities or to define the task at hand if there are many other people who could be responsible for support. When fewer support persons are present, roles are more easily defined and support may be more efficiently mobilized. The finding that density tends to affect the younger support persons may suggest that they withdraw in the presence of older support persons who seem to "know what they are doing". This may have implications for understanding the processes of network organization and mobilization.

Quality of the relationship. The nature of the relationship between the patient and the support person was assessed in terms of instrumental support (Companionship, Practical Help, and Advice) and emotional support (Emotional Expression and Empathic Understanding). These characteristics were assessed for before the illness, during the illness, and in terms of the patient's desires. Some trends emerged, although they are not clearly interpretable.

The nature of the relationship was most related to satisfaction. When the relationship was characterized by one type of support, the support person tended to be more satisfied with that type of support. In some cases, this also meant less satisfaction with the other support area (i.e., instrumental vs. emotional). This observation may be explained in terms of Bem's (1972) theory: people form attitudes based upon their behavior. Support persons may infer that they are satisfied with a certain type of support because they are engaged in it.

There were few interpretable results regarding the effects of relationship quality on support problems. Tentatively, it appears that a more instrumental relationship may be associated with fewer support problems and that older support persons may be more likely to engage in instrumental support. These trends need to be investigated under more controlled conditions, however, before conclusions can be drawn. One interesting observation was that for the Chemotherapy Unit group, the instrumental nature of the interaction was particularly salient with regard to support problems. Support persons in this group who were instrumentally involved experienced fewer problems in all areas. Instrumental aid may be a particularly important type of support for chemotherapy patients, since the treatment has such a traumatic physical impact. The sense that something valuable is being done for the patient may contribute to the experience of fewer problems. Better measures of relationship quality might serve to enhance and clarify some of these trends.

Type of relationship. An important aspect of the context was found to be the type of relationship between the support person and the patient. Significant differences among immediate family members, relatives, and friends were noted on a number of variables central to this study. Self involvement was critical, with the immediate family being most involved and friends being least so. An interesting observation was that involvement did not relate to support problems for family members as much as it did for friends; this may suggest that role obligations within the family tend to nullify the impact of involvement. Immediate family members also reported being more satisfied with their support and the relatives least satisfied. Support problems, particularly Personal Cost, also differentiated the relationship groups, with the immediate family reporting fewer problems and relatives and friends reporting more.

While it was not surprising that closer family members were more involved, it was somewhat unexpected that these support persons would report fewer problems and more satisfaction. One would anticipate that intense involvement in the support situation would increase stress and perceived difficulties. Several explanations for these findings can be offered. As noted earlier, a self-attributional process may be operating by which satisfaction is inferred from activity. Immediate family members may report more satisfaction because they are doing more, while relatives and friends examine their own behavior and perceive that they cannot be satisfied because they are not very involved.

Another explanation may be that some sort of buffering effect exists within the immediate family system that does not exist for the less cohesive system of relatives and friends. Support persons involved immediately with support may "rally around" one another, share feelings, and through similar experience comfort and encourage one another. This is a questionable interpretation, however, in view of previous observations that people have trouble talking and sharing their feelings with regard to cancer.

Another possibility is that different defense mechanisms are operating for people who are differentially involved with the patient. Support persons who are less involved with the patient may feel guilty and may need to rationalize their behavior. Admitting support problems may provide an avenue for such rationalization: "I am not doing much because there are many difficulties for me, like knowing exactly what to do." In contrast, support persons who are intensively involved may need to cope through the use of selective denial. These people are actively engaged in a process of systems maintenance, and the admission of problems might only serve to enhance their sense of stress.

Gottlieb (1983) has commented on this process of selective denial in the patient, along with others (cf. Meyerowitz, 1980). Dunkel-Schetter (1982) noted that patients largely denied having any support problems, even though observers thought otherwise. This process of denial is to a degree thought to be adaptive, and it has been suggested that support persons should avoid undermining this process in the patient. It is possible, then, that denial may also be adaptive for support persons for whom the illness is particularly stressful. However, Gottlieb has also noted that denial may ultimately result in a blockage of support, with the final result that support persons withdraw. While the process he describes is somewhat different in that it focuses on the patient's denial, it may be that denial by the support person may also lead to difficulties. "Burnout" and withdrawal may occur because the support person does not allow him or herself to deal openly with psychological distress.

There may also be a more "conscious" process operating, having to do with social desirability. Family members are supposed to be involved with the patient, and to be able to care for him or her. Admission of problems may be equated with admission of failure or a lack of adequate love for the patient. Interestingly, a number of subjects noted on the questionnaire that, "If you love someone, it's easy." The determination of whether this is a true reflection of feelings, a socially desirable response, or a defense against painful affect is beyond the scope of this study. However, this is an important area for further investigation.

Situational Aspects

The situational aspects were best reflected in the different source groups. Distance from the patient must make a difference in how support persons report about problems and satisfaction. Differences were found in this study among the groups varying in immediacy to the support situation. The trends were somewhat unexpected, with those closest to the situation reporting fewer problems and more satisfaction, and those with the greatest distance reporting more problems and less satisfaction. Possibly, some of the mechanisms discussed earlier may have been operating, with more closely involved people needing to deny the difficulties and more removed people being free to openly acknowledge the problems they had. The impact of retrospective reporting is not clear; it is possible that some distortions may occur for people looking back on the experience.

It is difficult to assess the impact of the sample selection from different sources. Certainly, immediacy may be a factor. However, the groups differed on a number of other critical factors such as age, involvement, and relationship to the patient, and the patients also differed in important ways. An attempt was made to sort out the impact of some of these variables through the use of partial correlations, but no clear results emerged. It is obvious that immediacy, age, involvement and relationship all need to be examined with appropriate experimental controls. In any case, the results do indicate that findings with regard to support problems and satisfaction cannot easily be generalized. An understanding of many contextual variables is crucial.

Limitations of the Study

There are a number of limitations of the study that have implications for the interpretation of the results and for future research. These may be subsumed under three categories: those having to do with the development of the questionnaire and measurement of particular variables; those related to statistical analyses; and those connected with sampling.

Questionnaire Development and Measurement Techniques

One limitation that is critical to the conclusions drawn about support problems is the procedure used to construct the scales. Sampling of the problem domains was limited by the ability to put into words certain problem areas, in a way that would evoke meaningful responses from subjects. Therefore, there are undoubtedly areas of problems that remain to be explored.

Another limitation is that of the use of self-report measures.

The drawbacks of such measures in terms of reliance upon verbal reports and perceptions are well known. This is a particularly important issue here, since subjects were reporting not only upon themselves but upon the patients as well. For some of the subjects who were not closely associated with the patient, inaccuracies in reporting undoubtedly occurred. As well, different motivations for filling out the questionnaire and concerns about the social desirability of responses may have affected the results. The use of external, objective measures in various areas would be a valuable addition. Independent measures of stress, both for the support person and for the patient, would be especially helpful. Further research should also give attention to the role of individual differences, utilizing personality inventories as independent measures.

Another limitation has to do with the methods of measurement used for some of the variables. For certain of the variables that were subsequently identified as being important, better operational definitions need to be created. This is particularly the case for the structural characteristics of the support network and for self involvement. Research into the dimensions of self involvement with respect to social support may be an especially fruitful area.

Statistical Analyses

The use of multivariate analysis carries with it both advantages and disadvantages. The multivariate techniques were valuable tools in attaining a preliminary understanding of basic relationships among a large number of variables. However, these analyses are limited because it is difficult to sort out certain relationships that may be confounded with other variables. High intercorrelations may distort the relative importance of the variables.

A related problem is the high number of variables in relation to the low number of subjects in certain subgroups. Some analyses could not be done at all, and some of those that were done yielded questionable results because of the variable/subject ratio.

Another statistical limitation is the reliance upon correlational data. While relationships can be noted, the direction of those relationships is impossible to establish, except on an intuitive basis. Causality cannot be determined, unless much more extensive and complicated analyses (e.g., path analysis) are undertaken. For later refinements of a model, longitudinal studies would help to assess the direction of relationships.

Sampling

Sampling problems in the study have been addressed throughout, since the source of the subjects formed an important part of the analyses. As has been noted earlier, conclusions about the differences by source of the sample are impossible to draw, since the groups differed on so many variables. Future research should aim at more carefully matching subjects by source, age, involvement, and relationship to the patient.

A related problem is that of preselection of the sample. For the clinic groups, it was apparent that certain people were more willing to volunteer than others. It may be that the volunteers were having a much less difficult time coping, so that the questionnaire was not particularly threatening. In this sense, the clinic sample was probably not entirely representative.. This will continue to be a problem in future research, from an ethical standpoint, since people undergoing considerable stress cannot be asked to participate if they are not psychologically able. Unfortunately, the data from such people would be especially germane to the area.

Another limitation of this and presumably of future research is the difficulty in obtaining a sample of friends. Friends report more problems in giving support and also lower involvement, which both indicate that they are not easily located in the support situation. This indeed was the case in this study. Very few friends were obtained from the actual clinic sample; most came from the University population. As well, attempts to locate friends among the senior citizens who would be willing to fill out the questionnaire met with failure. There may be a host of feelings, as yet not fully understood, which cause friends to absent themselves from the support situation, making them a difficult group of subjects to obtain.

Implications for Intervention

In a very general sense, the results of this research point to the importance of intervention with the support system. This intervention needs to go beyond simply seeking to maximize support for the patient; it needs to focus on the problems of the support persons as well.

A particularly interesting implication of the findings is that more attention needs to be given to problems related to behavioral and normative dimensions. Traditionally, the concern has been with the emotional ramifications of cancer. This study underlines the relative importance of the ambiguity of the support task and the personal cost assessment that both affect the delivery of support. Professionals need to give attention to clarification of support tasks, helping people to define what they can do to provide the most effective help. Professionals also need to concern themselves with the mobilization of support; that is, the support system needs help to clarify the roles of people within the system. Ultimately, it may be beneficial for support system members to meet with a professional, to discuss personal strengths and weaknesses, and to map out an "organization" for delivery of support. This may involve the assigning of leadership roles, rotation of responsibility, and the provision of adequate feedback mechanisms.

The results also suggest that friends and relatives are an ignored group who are assumed not to experience many support problems. The study in fact shows that they do experience difficulties and that this may be related to their withdrawal from the support of the patient. Intervention with friends and relatives in terms of helping them to define how they can best be of service may be of benefit to all. Such intervention would also serve to lift some of the burden from immediate family members.

Finally, issues of how best to cope with the support situation need to be addressed, particularly for immediate family members. There is evidence that these support persons may engage in denial as a form of adaptation. This may ultimately be maladaptive, in that psychological distress is essentially ignored and left to "eat away" at the person. More distant support persons also may benefit from intervention, since it appears that they may struggle with guilt feelings about their involvement with the patient, seeking to find rationalizations for their behavior in external conditions, and ignoring their own feelings. A process through which such problems could be openly discussed and support persons helped to face their inner experience would be beneficial. Of course, this process would need to be introduced gradually; it is necessary for professionals to provide general information to the public regarding the kinds of experiences that may be encountered in giving support. In this way, support persons could allow themselves to acknowledge their experiences and to share them with others.

APPENDICES

APPENDIX A

SOCIAL SUPPORT QUESTIONNAIRE

University of Windsor

Department of Psychology

STUDIES ON COPING WITH CANCER: FAMILY & FRIENDS

Social support has been found to play a significant role in helping patients to cope with cancer. Family and friends are important in providing support, such as emotional or practical help. But there are many things that make it difficult for them to do this.

The purpose of this study is to identify some of the difficulties that family members and friends of cancer patients experience in giving support. It is hoped that the results will also be useful in helping family, friends, and professionals to work more closely together. We hope that this research will be of benefit in other serious illnesses as well.

Your help in filling out this questionnaire is greatly appreciated. Do not put your name on the questionnaire. Your answers will be strictly confidential.

We need information about your background and about the patient because people from different backgrounds who are dealing with different patients vary in how hard they find it to give support. Please respond to the following either by filling in the blank or checking the appropriate answer.

Relationship to the patient: The patient is my ________ (for example, mother, friend, co-worker, etc.).

Yourself: Sex ___; Age ___; Born in Canada or U.S.? Yes ___ No ___.
If No, number of years you have lived in Canada or the U.S. ___.

Patient: Sex ___; Age ___; Marital Status ________.

Type/Site of cancer: Breast ___; Lung ___; Colon-rectum ___; Leukemia ___; Prostate ___; Hodgkin's disease ___; Unknown ___; Other ___.

Type of treatment patient has had (Check any that apply): Surgery ___; Chemotherapy ___; Radiation therapy ___; Unknown ___; Other ___.

If the patient is still living, has the disease spread to other parts of the body? Yes ___; No ___; Unknown ___.

Current status of the patient: Recently started treatment ___; Undergoing treatment for a long time ___; Apparently recovered ___; Terminal phase ___; Recently died ___; Died several years or more ago ___.

Common reactions to the illness (Check off those that the patient has experienced):
Denial of illness ___; Depression ___; Anger ___; Anxiety ___; Social withdrawal ___; Feelings of over-dependency on others ___; Feelings that others reject him/her ___.

Patient's support system:

Number of good friends in patient's community:	Few ___	; Some ___	; Many ___	; Unknown ___.
Number of relatives in patient's community:	Few ___	; Some ___	; Many ___	; Unknown ___.
Degree of interaction among patient's relatives:	Little ___	; Some ___	; Great Deal ___.	

Your involvement in providing support to the patient: Slightly involved ___; Rather involved ___; Quite involved ___; Very involved ___; Extremely involved ___.

The following describe some of the things that people do for one another in a relationship. Please read the descriptions and then answer the questions that follow.

COMPANIONSHIP:	Enjoy each other's company; enjoy doing the same kinds of things together; have common interests.
UNDERSTANDING:	Have an accurate perception of the other person's feelings and thoughts; be able to reflect how the other person feels even when he/she cannot put it into words.
HELPING:	Provide material and physical assistance; give time and service; help with duties requiring time and effort; provide such aid as transportation.
EMOTIONAL EXPRESSION:	Encourage the other person to open up and to share honestly his/her deeper feelings, problems, fears and concerns; help the other person to let go of some tension.
ADVICE AND GUIDANCE:	Give information to aid in problem-solving, for example, where to go for help or practical suggestions for coping with problems.

The nature of a relationship may change with the onset of an illness. Please check off the two types of behavior that best describe your relationship with the patient **before** and **during** the illness.

Before: Companionship ___; Understanding ___; Helping ___; Emotional Expression ___;
Advice and Guidance ___.

During: Companionship ___; Understanding ___; Helping ___; Emotional Expression ___;
Advice and Guidance ___.

Which of these kinds of support are/were **most desired** by the patient during the illness? Check two.
Companionship ___; Understanding ___; Helping ___; Emotional Expression ___;
Advice and Guidance ___.

Satisfaction with support: Self rating. Use the following rating scale and circle the letter which best describes your degree of satisfaction with the support you have given to the patient in each area.

A	B	C	D	E
Very Satisfied	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**

COMPANIONSHIP:	A	B	C	D	E
UNDERSTANDING:	A	B	C	D	E
HELPING:	A	B	C	D	E
EMOTIONAL EXPRESSION:	A	B	C	D	E
ADVICE AND GUIDANCE:	A	B	C	D	E

Four types of social support are defined below. After each type there are a number of statements regarding problems that you might experience with that **specific** type of support.

We would like you to read each statement, then to ask yourself, "Does this statement accurately describe my experience in giving this kind of support?" Then express your judgement about the accuracy of the statement by using the scale at the top of the page. Circle the letter to the right of the statement that corresponds to your judgement.

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

PRACTICAL HELP: Giving material and physical assistance to patient; giving of time and services; taking care of patient's children; helping with duties requiring physical exertion; providing transportation.

1. When I was depressed over the illness, it was hard to give such help. A B C D E
2. I was afraid that if I did too much for the patient, he/she would become too dependent on me. A B C D E
3. I didn't always have enough time to do these things for the patient because of other responsibilities. A B C D E
4. I wasn't sure how the patient wished to be treated in this regard. A B C D E
5. Being around the patient really disturbed me too much to be of any service. A B C D E
6. I wasn't sure how such needs of the patient best could be met. A B C D E
7. It made me feel too uncomfortable to help much with physical care. A B C D E
8. I don't want someone else to depend upon me too much for help. A B C D E
9. It was hard to tell if this was the right thing to do. A B C D E
10. I hurt so when the patient hurt that I couldn't give him/her much help. A B C D E
11. I was afraid to give the patient any physical care, because I might have injured him/her. A B C D E
12. I didn't think it was my responsibility to offer such services to the patient. A B C D E
13. I got discouraged because it seemed I would have to help for a long time. A B C D E
14. I would have embarassed the patient if I had offered to do such things for him/her. A B C D E

***

EMOTIONAL EXPRESSION: Encouraging patient to open up and to share honestly his/her deeper feelings and emotions, as well as problems, fears and concerns; allowing "ventilation" of feelings to provide release of emotional tension.

15. I avoided talking about problems with the patient, because I thought being cheerful and optimistic would be more helpful. A B C D E
16. Listening to the patient's problems just made me feel worse. A B C D E
17. I didn't think it was my responsibility to encourage ventilation. A B C D E
18. I hurt so when the patient hurt that I couldn't listen to his/her deeper feelings very well. A B C D E
19. It would have been better for the patient to learn to live with the disease without talking about it too much. A B C D E
20. I don't want someone else to depend upon me too much to listen to them. A B C D E
21. Hearing the patient talk made me afraid of getting cancer. A B C D E
22. It was hard to tell if this was the right thing to do. A B C D E
23. When the patient talked about his/her problems, it was sometimes too threatening to me. A B C D E
24. I didn't always have enough time to listen to the patient's concerns because of other responsibilities. A B C D E
25. Being around the patient really disturbed me too much to listen. A B C D E
26. I wasn't sure how the patient wished to be treated in this regard. A B C D E
27. When I was depressed over the illness, it was hard to encourage the patient to express his/her feelings. A B C D E
28. If a patient focuses too much on fears and concerns, it might interfere with his/her adjustment to the disease. A B C D E
29. I wasn't sure how such needs of the patient best could be met. A B C D E

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

ADVICE AND GUIDANCE: Giving information to patient to aid in problem-solving; telling patient where to go for help; giving practical suggestions for coping with the illness itself or problems arising from the illness.

30. It was hard to tell if this was the right thing to do. A B C D E
31. Being around the patient really disturbed me too much to give advice. A B C D E
32. I was unsure of how much information to give the patient about the disease because he/she might become more upset. A B C D E
33. When I was depressed over the illness, it was hard to give advice. A B C D E
34. I didn't really think that my advice made much difference for the patient. A B C D E
35. I wasn't sure how such needs of the patient best could be met. A B C D E
36. I was too caught up in the patient's problems to give any useful advice. A B C D E
37. I was uncomfortable when the patient asked me directly for advice. A B C D E
38 I didn't feel it was my job to help the patient solve his/her problems. A B C D E
39. I hurt so when the patient hurt that I couldn't give much advice. A B C D E
40. I don't want someone else to depend upon me too much for advice. A B C D E
41. I didn't always have enough time to give advice because of other responsibilities. A B C D E
42. I was so overwhelmed with the patient's problems that it was difficult to give much advice. A B C D E
43. I wasn't sure how the patient wished to be treated in this regard. A B C D E
44. I didn't think it was my responsibility to give advice. A B C D E

•••

EMPATHIC UNDERSTANDING: Having an accurate perception of patient's feelings and thoughts; being able to reflect how patient feels, even when he/she cannot put it into words; seeing things through the patient's eyes.

45. I did not try to understand what the patient was experiencing because it depressed me. A B C D E
46. I wasn't sure how the patient wished to be treated in this regard. A B C D E
47. The patient did not reveal enough for me to understand him/her. A B C D E
48. I hurt so when the patient hurt that I couldn't be very understanding. A B C D E
49. I didn't always have enough time to be understanding because of other responsibilities. A B C D E
50. I felt so threatened by the patient's condition that I had trouble understanding his/her experience. A B C D E
51. I don't want someone else to depend upon me too much for empathy. A B C D E
52. It was just too painful to open myself up to the patient's experience. A B C D E
53. I wasn't sure how such needs of the patient best could be met. A B C D E
54. When I was depressed over the illness, it was hard to be understanding. A B C D E
55. It was hard to tell if this was the right thing to do. A B C D E
56. Being around the patient really disturbed me too much to try to see things through his/her eyes. A B C D E
57. I didn't think it was my responsibility to really understand the patient's feelings and thoughts. A B C D E
58. I had no idea how to communicate my understanding to the patient. A B C D E

In the space remaining, write any comments about other aspects of your experience with the patient, either positive or negative, that you feel are important. You may continue on another sheet of paper if you wish. **Thank you for your interest in this research.**

APPENDIX B

FACTOR MATRIX FOR ITEMS ACROSS SUPPORT TYPES

TABLE B-1

VARIMAX Rotated Factor Matrix for Items Across Support Types

Item	I[a]	II[b]	III[c]	Communality
Task Ambiguity				
4	.59	.20	.13	.41
6	.57	.15	.20	.39
9	.48	.23	.19	.32
22	.56	.34	.24	.49
26	.67	.20	.31	.59
29	.65	.18	.15	.48
30	.49	.44	.13	.45
35	.67	.28	.15	.55
43	.82	.20	.16	.74
46	.72	.23	.16	.60
53	.61	.19	.09	.42
55	.64	.31	.16	.53
Affect Arousal				
1	.31	.55	.08	.41
5	.31	.40	.38	.40
10	.20	.54	.16	.36
18	.20	.50	.26	.36
25	.20	.50	.37	.43
27	.22	.57	.08	.38
31	.32	.55	.32	.51
33	.26	.59	.18	.45
39	.28	.65	.22	.55
48	.15	.65	.22	.49
54	.21	.63	.23	.49
56	.27	.50	.31	.42
Personal Cost				
3	.32	.07	.63	.50
8	.05	.28	.53	.36
12	.18	.37	.33	.28
17	.33	.22	.29	.24

Continued ...

TABLE B-1 (Continued)

Item	Factors I[a]	 II[b]	 III[c]	Communality
Personal Cost				
20	.04	.26	.54	.36
24	.29	.07	.75	.65
40	.16	.25	.57	.41
41	.27	.04	.77	.67
44	.41	.24	.35	.35
49	.33	.08	.75	.68
51	.01	.25	.51	.32
57	.14	.32	.41	.29
Eigenvalue	6.23	5.16	4.92	16.31
% of Variance	17%	14%	14%	45%

Note. Items are grouped according to the support problem they reflect. [a]Proposed name for Factor I: Task Ambiguity. [b]Proposed name for Factor II: Affect Arousal. [c]Proposed name for Factor III: Personal Cost.

APPENDIX C

SUPPORT PROBLEM SCALES

APPENDIX C

Support Problem Scales

Affect Arousal/Practical Help

1. When I was depressed over the illness, it was hard to give such help.
5. Being around the patient really disturbed me too much to be of any service.
10. I hurt so when the patient hurt that I couldn't give him/her much help.

Task Ambiguity/Practical Help

4. I wasn't sure how the patient wished to be treated in this regard.
6. I wasn't sure how such needs of the patient best could be met.
9. It was hard to tell if this was the right thing to do.

Personal Cost/Practical Help

3. I didn't always have enough time to do these things for the patient because of other responsibilities.
8. I don't want someone else to depend upon me too much for help.
12. I didn't think it was my responsibility to offer such services to the patient.

Affect Arousal/Emotional Expression

18. I hurt so when the patient hurt that I couldn't listen to his/her deeper feelings very well.
25. Being around the patient really disturbed me too much to listen.
27. When I was depressed over the illness, it was hard to encourage the patient to express his/her feelings.

Task Ambiguity/Emotional Expression

22. It was hard to tell if this was the right thing to do.
26. I wasn't sure how the patient wished to be treated in this regard.
29. I wasn't sure how such needs of the patient best could be met.

Personal Cost/Emotional Expression

17. I didn't think it was my responsibility to encourage ventilation.
20. I don't want someone else to depend upon me too much to listen to them.
24. I didn't always have enough time to listen to the patient's concerns because of other responsibilities.

Continued ...

APPENDIX C (Continued)

Affect Arousal/Advice and Guidance

31. Being around the patient really disturbed me too much to give advice.
33. When I was depressed over the illness, it was hard to give advice.
39. I hurt so when the patient hurt that I couldn't give much advice.

Task Ambiguity/Advice and Guidance

30. It was hard to tell if this was the right thing to do.
35. I wasn't sure how such needs of the patient best could be met.
43. I wasn't sure how the patient wished to be treated in this regard.

Personal Cost/Advice and Guidance

40. I don't want someone else to depend upon me too much for advice.
41. I didn't always have enough time to give advice because of other responsibilities.
44. I didn't think it was my responsibility to give advice.

Affect Arousal/Empathic Understanding

48. I hurt so when the patient hurt that I couldn't be very understanding.
54. When I was depressed over the illness, it was hard to be understanding.
56. Being around the patient really disturbed me too much to try to see things through his/her eyes.

Task Ambiguity/Empathic Understanding

46. I wasn't sure how the patient wished to be treated in this regard.
53. I wasn't sure how such needs of the patient best could be met.
55. It was hard to tell if this was the right thing to do.

Personal Cost/Empathic Understanding

49. I didn't always have enough time to be understanding because of other responsibilities.
51. I don't want someone else to depend upon me too much for empathy.
57. I didn't think it was my responsibility to really understand the patient's feelings and thoughts.

Physical Help/Practical Help

7. It made me feel too uncomfortable to help much with physical care.
11. I was afraid to give the patient any physical care, because I might have injured him/her.

APPENDIX C (Continued)

Vulnerability/Emotional Expression

16. Listening to the patient's problems just made me feel worse.
21. Hearing the patient talk made me afraid of getting cancer.
23. When the patient talked about his/her problems, it was sometimes too threatening to me.

Beliefs/Emotional Expression

15. I avoided talking about problems whth the patient, because I thought being cheerful and optimistic would be more helpful.
19. It would have been better for the patient to learn to live with the disease without talking about it too much.
28. If a patient focuses too much on fears and concerns, it might interfere with his/her adjustment to the disease.

Feelings/Advice and Guidance

36. I was too caught up in the patient's problems to give any useful advice.
37. I was uncomfortable when the patient asked me directly for advice.
42. I was so overwhelmed with the patient's problems that it was difficult to give much advice.

Communication/Empathic Understanding

47. The patient did not reveal enough for me to understand him/her.
58. I had no idea how to communicate my understanding to the patient.

Vulnerability/Empathic Understanding

50. I felt so threatened by the patient's condition that I had trouble understanding his/her experience.
52. It was just too painful to open myself up to the patient's experience.

Note. Affect Arousal/Total includes Items 1, 5, 10, 18, 25, 27, 31, 33, 39, 48, 54, 56.
Task Ambiguity/Total includes Items 4, 6, 9, 22, 26, 29, 30, 35, 43, 46, 53, 55.
Personal Cost/Total includes Items 3, 8, 12, 17, 20, 24, 40, 41, 44, 49, 51, 57.

APPENDIX D

INTERCORRELATIONS AMONG ALL SUPPORT PROBLEM SCALES

TABLE D-1

Intercorrelations Among All Support Problem Scales

Scale	AAH	TAH	PCH	AAE	TAE	PCE	AAA	TAA	PCA	AAU	TAU	PCU	PH	VE	BE	FA	CU	VU	AAT	TAT	PCT
AAH	1.00																				
TAH	.51	1.00																			
PCH	.52	.45	1.00																		
AAE	.62	.35	.48	1.00																	
TAE	.52	.62	.45	.54	1.00																
PCE	.44	.42	.70	.53	.55	1.00															
AAA	.66	.50	.51	.73	.50	.43	1.00														
TAA	.57	.62	.45	.46	.72	.44	.63	1.00													
PCA	.46	.45	.75	.40	.50	.72	.48	.53	1.00												
AAU	.67	.35	.47	.70	.50	.48	.69	.50	.48	1.00											
TAU	.48	.58	.42	.50	.71	.42	.51	.75	.45	.50	1.00										
PCU	.37	.33	.69	.47	.44	.70	.43	.39	.72	.55	.41	1.00									
PH	.59	.44	.60	.59	.47	.40	.54	.40	.44	.59	.41	.49	1.00								
VE	.61	.54	.56	.66	.54	.56	.59	.52	.51	.61	.47	.46	.57	1.00							
BE	.34	.29	.31	.52	.40	.43	.39	.40	.32	.43	.46	.36	.40	.45	1.00						
FA	.62	.44	.46	.64	.52	.37	.76	.61	.53	.70	.55	.45	.48	.58	.32	1.00					
CU	.33	.44	.42	.44	.58	.44	.37	.44	.39	.41	.57	.36	.41	.47	.40	.41	1.00				
VU	.58	.40	.49	.60	.49	.52	.61	.49	.52	.66	.48	.51	.55	.67	.38	.62	.54	1.00			
AAT	.85	.49	.57	.87	.59	.54	.88	.62	.52	.88	.57	.52	.66	.71	.48	.78	.45	.71	1.00		
TAT	.60	.81	.51	.53	.88	.53	.62	.89	.56	.53	.88	.46	.50	.60	.45	.61	.59	.54	.66	1.00	
PCT	.51	.47	.88	.53	.55	.88	.52	.51	.90	.56	.48	.87	.54	.59	.40	.51	.45	.58	.61	.58	1.00

Continued ...

TABLE D-1 (Continued)

Note. *N* = 157.

AAH = Affect Arousal/Help. TAH = Task Ambiguity/Help. PCH = Personal Cost/Help. AAE = Affect Arousal/Expression. TAE = Task Ambiguity/Expression. PCE = Personal Cost/Expression. AAA = Affect Arousal/Advice. TAA = Task Ambiguity/Advice. PCA = Personal Cost/Advice. AAU = Affect Arousal/Understanding. TAU = Task Ambiguity/Understanding. PCU = Personal Cost/Understanding. PH = Physical Help/Help. VE = Vulnerability/Expression. BE = Beliefs/Expression. FA = Feelings/Advice. CU = Communication/Understanding. VU = Vulnerability/Understanding. AAT = Affect Arousal Total. TAT = Task Ambiguity Total. PCT = Personal Cost Total.

APPENDIX E

BACKGROUND INFORMATION ON SAMPLE AND ON PATIENTS

TABLE E-1

Background Information on Sample

	Frequency	
	n	Percent
Source of respondent		
Radiation unit	47	29.9
Chemotherapy unit	28	17.8
University	62	39.5
Other	19	12.2
Missing	1	0.6
Sex of respondent		
Male	53	33.8
Female	104	66.2
Age of respondent		
10-19	29	18.5
20-34	47	29.9
35-49	39	24.8
50-64	25	15.9
65-74	15	9.6
75 and over	2	1.3
Born in Canada or U.S.		
Yes	136	86.6
No	21	13.4

Note. N = 157.

TABLE E-2

Background Information on Patients Described by Sample

	Frequency	
	n	Percent
Relation to respondent		
Spouse	28	17.8
Parent	27	17.2
Child	6	3.8
Sibling	10	6.4
Grandparent	18	11.5
Other relative	21	13.4
In-Law	11	7.0
Friend	36	22.9
Sex of patient		
Male	71	45.0
Female	86	55.0
Age of patient		
Under 10	1	0.6
10-19	10	6.4
20-34	17	10.8
35-49	21	13.4
50-64	58	36.9
65-74	31	19.7
75 and over	19	12.1
Marital status		
Married	91	58.0
Single	26	16.6
Divorced/separated	6	3.8
Widowed	31	19.7
Unknown	3	1.9
Type/site of cancer		
Breast	28	17.8
Lung	30	19.1
Colon-rectum	13	8.3
Leukemia	12	7.6
Prostate	6	3.8
Hodgkin's disease	4	2.5
Other	51	32.5
Unknown	13	8.3

Continued ...

TABLE E-2 (Continued)

	Frequency	
	n	Percent
Treatment		
Surgery	22	14.0
Chemotherapy	30	19.1
Radiotherapy	27	17.2
Surg. and Chemo.	20	12.7
Chemo. and Rad.	11	7.0
Surg. and Rad.	15	9.6
Surg., Rad., Chemo.	22	14.0
Other	3	1.9
Unknown	7	4.5
Spread of disease		
Yes	25	15.9
No	52	33.1
Unknown	25	15.9
Deceased	55	35.1
Patient status		
Recently began treatment	46	29.3
Lengthy treatment	25	15.9
Apparently recovered	24	15.3
Terminal	7	4.5
Recently died	29	18.5
Died several years ago	26	16.5

Note. Number of patients described = 157.

APPENDIX F

FREQUENCIES OF PATIENT REACTIONS TO ILLNESS

TABLE F-1

Frequencies of Patient Reactions to Illness

	Frequency	
Reaction	n	Percent
Denial of illness	45	28.7
Depression	101	64.3
Anger	65	41.4
Anxiety	71	45.2
Social withdrawal	34	21.7
Over-dependency	49	31.2
Rejection by others	13	8.3

Note. N = 157. Frequencies represent the absolute numbers and proportion of patients experiencing each reaction.

APPENDIX G

DISCRIMINANT WEIGHTS FOR RELATIONSHIP AND SOURCE GROUPS

TABLE G-1

Stepwise Discriminant Analysis for Relationship Groups: Discriminant Weights

Independent Variable	Discriminant Weight Function 1	 Function 2
Subject sex	-.27	-.12
Patient sex	-.27	-.08
Patient age	.31	.83
Number of good friends	.24	-.14
Interaction/relatives[a]	.01	.36
Self involvement	.77	.04
Emotional desired[b]	-.04	.31
Satisfaction/Help[c]	-.37	.22
Task Ambiguity/Total[d]	.31	.40
Personal Cost/Total[e]	-.37	.13

Group	Group Centroid Function 1	 Function 2
Immediate family	.99	-.24
Relatives	-.49	.98
Friends	-1.26	-.89
Canonical Correlation:	.69	.59
Percent of variance:	63%	37%
χ^2:	158.84*	62.99*
df:	20	9

Note. N = 157. Discriminant weight refers to the weight assigned to each independent variable in computing the functions. Tolerance = .001; F-to-enter = 2.0.

[a] Interaction among relatives. [b] Emotional support desired by patient.

[c] Satisfaction with Practical Help. [d] Task Ambiguity across all supports. [e] Personal Cost across all supports.

*$p < .001$.

TABLE G-2

Stepwise Discriminant Analysis for Source Groups: Discriminant Weights

Independent Variable	Discriminant Weight Function 1	Discriminant Weight Function 2
Subject age	.75	-.34
Patient reaction	.43	.60
Interaction/relatives[a]	-.34	-.45
Self involvement	.38	.43
Affect Arousal/Total[b]	-.21	.55
	Group Centroid	
Group	Function 1	Function 2
Radiation unit	1.11	-.07
Chemotherapy unit	.82	.55
University	-1.29	.06
Other	.25	-.83
Canonical correlation:	.74	.36
Percent of variance:	89%	11%
χ^2:	138.98**	21.14*
df:	15	8

Note. N = 156. Discriminant weight refers to the weight assigned to each independent variable in computing the functions. Tolerance = .001; F-to-enter = 2.0.

[a] Interaction among relatives. [b] Affect Arousal across all supports.

*$p < .01$. **$p < .001$.

APPENDIX H

MEANS, STANDARD DEVIATIONS, AND F-RATIOS FOR SPECIFIC SCALES

TABLE H-1

Means, Standard Deviations, and F-ratios for Specific Scales: Relationship Groups

Group	n	Vuln/Exp[a]		Beliefs/Exp[b]		Feelings/Advice[c]		Vuln/Und[d]		Comm/Und[e]		PhyHelp/Help[f]	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Immediate Family	71	5.70	2.72	7.21	2.56	6.08	2.88	3.82	2.01	4.28	2.06	3.41	1.64
Relatives	50	7.06	2.57	8.14	2.67	7.26	2.08	4.70	1.95	5.70	1.93	4.74	1.74
Friends	36	6.97	2.86	7.47	2.73	7.39	1.86	4.31	1.58	4.81	1.79	3.97	1.63
F:		4.64**		1.85		4.99**		3.22*		7.68***		9.37***	

Note. Higher mean indicates more agreement that the scale items reflect a problem area. Comparisons of means should be made reading down the columns.

[a] Vulnerability/Emotional Expression. [b] Beliefs/Emotional Expression. [c] Feelings/Advice. [d] Vulnerability/Empathic Understanding. [e] Communication/Empathic Understanding. [f] Physical Help/Practical Help.

*$p < .05$; **$p < .01$; ***$p < .001$.

TABLE H-2

Means, Standard Deviations, and F-Ratios for Specific Scales: Source Groups

		Scale											
Group	n	Vuln/[a] Exp		Beliefs/[b] Exp		Feelings/[c] Advice		Vuln/[d] Und		Comm/[e] Und		PhyHelp/[f] Help	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Radiotherapy Unit	47	5.30	2.11	7.13	1.96	5.83	2.06	3.55	1.25	4.17	1.70	3.45	1.46
Chemotherapy Unit	28	6.04	3.28	7.61	3.00	6.50	3.18	3.82	2.29	4.54	1.82	3.82	2.26
University	62	7.61	2.38	8.03	2.59	7.77	2.08	4.90	1.90	5.52	2.02	4.44	1.68
Other	19	5.63	2.97	6.95	3.57	5.84	2.24	3.95	2.07	4.66	2.56	3.69	1.25
F:		8.27***		1.43		7.54***		5.52***		4.51**		3.29*	

Note. Higher mean indicates more agreement that the scale items reflect a problem area. Comparisons of means should be made reading down the columns.

[a] Vulnerability/Emotional Expression. [b] Beliefs/Emotional Expression. [c] Feelings/Advice. [d] Vulnerability/Empathic Understanding. [e] Communication/Empathic Understanding. [f] Physical Help/Practical Help.

*p < .05; **p .01; ***p .001.

APPENDIX I

CANONICAL ANALYSES WITH SUPPORT PROBLEMS AS DEPENDENT VARIABLES:

SUBGROUPS

TABLE I-1

Canonical Analysis with Support Problems as Dependent Variables: Immediate Family

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	+
Subject age	-.38
Patient age	.23
Patient sex	+
Patient reaction	+
Number of good friends	.21
Number of relatives	.35
Interaction/relatives[a]	+
Self involvement	+
Instrumental before[b]	+
Emotional before[c]	+
Instrumental during[d]	.40
Emotional during[e]	+
Instrumental desired[f]	.32
Emotional desired[g]	+
Satis/Companionship[h]	+
Satis/Understanding[i]	+
Satis/Practical Help[j]	.35
Satis/Expression[k]	+
Satis/Advice[l]	.21
Dependent Variable	Variate 2
Affect Arousal/Total[m]	+
Task Ambiguity/Total[n]	+
Personal Cost/Total[o]	77
Proportion of redundancy:	10%
Canonical correlation:	.69
Percent of variance:	51%
χ^2:	77.61*
df:	63

Continued ...

TABLE I-1 (Continued)

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 71$.

[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*$p < .10$.

TABLE I-2

Canonical Analysis with Support Problems as Dependent Variables: Relatives

Independent Variable	Structure Correlation Function Variate 1
Subject sex	+
Subject age	+
Patient age	+
Patient sex	+
Patient reaction	-.46
Number of good friends	+
Number of relatives	.34
Interaction/relatives[a]	+
Self involvement	+
Instrumental before[b]	+
Emotional before[c]	+
Instrumental during[d]	+
Emotional during[e]	-.34
Instrumental desired[f]	+
Emotional desired[g]	+
Satis/Companionship[h]	.71
Satis/Understanding[i]	.46
Satis/Practical Help[j]	.52
Satis/Expression[k]	.51
Satis/Advice[l]	.47
Dependent Variable	**Variate 2**
Affect Arousal/Total[m]	+
Task Ambiguity/Total[n]	.80
Personal Cost/Total[o]	.74
Proportion of redundancy:	28%
Canonical correlation:	.83
Percent of variance:	62%
χ^2:	77.54*
df:	63

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 50$.

Continued ...

TABLE I-2 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*$p < .10$.

TABLE I-3

Canonical Analysis with Support Problems as Dependent Variables: Friends

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	+
Subject age	-.43
Patient age	+
Patient sex	-.32
Patient reaction	-.31
Number of good friends	.31
Number of relatives	+
Interaction/relatives[a]	+
Self involvement	-.55
Instrumental before[b]	+
Emotional before[c]	+
Instrumental during[d]	+
Emotional during[e]	+
Instrumental desired[f]	+
Emotional desired[g]	+
Satis/Companionship[h]	-.32
Satis/Understanding[i]	.46
Satis/Practical Help[j]	.46
Satis/Expression[k]	.73
Satis/Advice[l]	.55
	.49
Dependent Variable	Variate 2
Affect Arousal/Total[m]	.78
Task Ambiguity/Total[n]	.93
Personal Cost/Total[o]	.77
Proportion of redundancy:	61%
Canonical correlation:	.94
Percent of variance:	77%
χ^2:	82.63*
df:	63

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. n = 36.

Continued ....

TABLE I-3 (Continued)

---

[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

$*p < .05$.

TABLE I-4

Canonical Analysis with Support Problems as Dependent Variables: Radiation Unit

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	+
Subject age	+
Patient age	-.29
Patient sex	-.46
Patient reaction	+
Number of good friends	-.24
Number of relatives	+
Interaction/relatives[a]	+
Self involvement	+
Instrumental before[b]	.31
Emotional before[c]	.44
Instrumental during[d]	.32
Emotional during[e]	.27
Instrumental desired[f]	+
Emotional desired[g]	+
Satis/Companionship[h]	-.38
Satis/Understanding[i]	+
Satis/Practical Help[j]	+
Satis/Expression[k]	+
Satis/Advice[l]	+
Dependent Variable	Variate 2
Affect Arousal/Total[m]	.34
Task Ambiguity/Total[n]	-
Personal Cost/Total[o]	-.57
Proportion of redundancy:	10%
Canonical correlation:	.81
Percent of variance:	53%
χ^2:	75.69*
df:	63

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 47$.

Continued ...

TABLE I-4 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*p = .13.

TABLE I-5

Canonical Analysis with Support Problems as Dependent Variables: Chemotherapy Unit

Independent Variable	Structure Correlation Function Variate 1
Subject sex	.43
Subject age	.53
Patient age	+
Patient sex	+
Patient reaction	+
Number of good friends	+
Number of relatives	+
Interaction/relatives[a]	.35
Self involvement	+
Instrumental before[b]	-.53
Emotional before[c]	+
Instrumental during[d]	-.60
Emotional during[e]	+
Instrumental desired[f]	-.65
Emotional desired[g]	+
Satis/Companionship[h]	-.34
Satis/Understanding[i]	+
Satis/Practical Help[j]	+
Satis/Expression[k]	-.34
Satis/Advice[l]	+
Dependent Variable	**Variate 2**
Affect Arousal/Total[m]	-.55
Task Ambiguity/Total[n]	-.61
Personal Cost/Total[o]	-.99
Proportion of redundancy:	53%
Canonical correlation:	.98
Percent of variance:	86%
χ^2:	77.74*
df:	63

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 28$.

Continued ...

TABLE I-5 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*$p < .10$.

TABLE I-6

Canonical Analysis with Support Problems as Dependent Variables: University

Independent Variable	Structure Correlation Function Variate 1
Subject sex	-
Subject age	-.36
Patient age	-
Patient sex	-.28
Patient reaction	-
Number of good friends	.22
Number of relatives	.32
Interaction/relatives[a]	-
Self involvement	-.58
Instrumental before[b]	-
Emotional before[c]	-.25
Instrumental during[d]	-
Emotional during[e]	-
Instrumental desired[f]	-
Emotional desired[g]	-
Satis/Companionship[h]	.73
Satis/Understanding[i]	.51
Satis/Practical Help[j]	.63
Satis/Expression[k]	.45
Satis/Advice[l]	.53
Dependent Variable	**Variate 2**
Affect Arousal/Total[m]	.61
Task Ambiguity/Total[n]	.97
Personal Cost/Total[o]	.72
Proportion of redundancy:	38%
Canonical correlation:	.79
Percent of variance:	55%
χ^2:	99.65*
df:	63

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 62$.

Continued ...

TABLE I-6 (Continued)

---

[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*$p < .01$.

APPENDIX J

CANONICAL ANALYSES WITH SATISFACTION MEASURES AS DEPENDENT VARIABLES:

SUBGROUPS

TABLE J-1

Canonical Analysis with Satisfaction Measures as Dependent Variables: Immediate Family

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	-
Subject age	-.49
Patient age	-
Patient sex	-
Patient reaction	-.44
Number of good friends	-
Number of relatives	-
Interaction/relatives[a]	-
Self involvement	-.66
Instrumental before[b]	-
Emotional before[c]	.33
Instrumental during[d]	.36
Emotional during[e]	.32
Instrumental desired[f]	.33
Emotional desired[g]	.23
Affect/Arousal/Total[h]	.24
Task Ambiguity/Total[i]	.46
Personal Cost/Total[j]	.30
Dependent Variable	Variate 2
Satis/Companionship[k]	.82
Satis/Understanding[l]	.79
Satis/Practical Help[m]	.63
Satis/Expression[n]	.82
Satis/Advice[o]	.52
Proportion of redundancy:	28%
Canonical correlation:	.73
Percent of variance:	39%
χ^2:	128.98*
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 71$.

Continued ...

TABLE J-1 (Continued)

---

[a]Interaction among relatives. [b]Instrumental support before illness. [c]Emotional support before illness. [d]Instrumental support during illness. [e]Emotional support during illness. [f]Instrumental support desired by patient. [g]Emotional support desired by patient. [h]Affect Arousal across all supports. [i]Task Ambiguity across all supports. [j]Personal Cost across all supports. [k]Satisfaction with companionship. [l]Satisfaction with Empathic Understanding. [m]Satisfaction with Practical help. [n]Satisfaction with Emotional Expression. [o]Satisfaction with advice.

*$p < .01$.

TABLE J-2

Canonical Analysis with Satisfaction Measures as Dependent Variables: Relatives

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	-.24
Subject age	-.37
Patient age	-
Patient sex	-
Patient reaction	-
Number of good friends	.24
Number of relatives	.31
Interaction/relatives[a]	-
Self involvement	-
Instrumental before[b]	.32
Emotional before[c]	-
Instrumental during[d]	.61
Emotional during[e]	-.39
Instrumental desired[f]	-
Emotional desired[g]	-
Affect/Arousal/Total[h]	.31
Task Ambiguity/Total[i]	.58
Personal Cost/Total[j]	.29
Dependent Variable	Variate 2
Satis/Companionship[k]	.73
Satis/Understanding[l]	-
Satis/Practical Help[m]	.76
Satis/Expression[n]	-
Satis/Advice[o]	.59
Proportion of redundancy:	21%
Canonical correlation:	.83
Percent of variance:	42%
χ^2:	124.71
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 50$.

Continued ...

TABLE J-2 (Continued)

---

[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p < .05$

TABLE J-3

Canonical Analysis with Satisfaction Measures as Dependent Variables: Friends

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	+
Subject age	-.40
Patient age	+
Patient sex	+
Patient reaction	+
Number of good friends	+
Number of relatives	+
Interaction/relatives[a]	+
Self involvement	-.39
Instrumental before[b]	.35
Emotional before[c]	-.44
Instrumental during[d]	.40
Emotional during[e]	-.38
Instrumental desired[f]	.47
Emotional desired[g]	-.44
Affect/Arousal/Total[h]	.35
Task Ambiguity/Total[i]	.47
Personal Cost/Total[j]	.37
Dependent Variable	Variate 2
Satis/Companionship[k]	.61
Satis/Understanding[l]	+
Satis/Practical Help[m]	.77
Satis/Expression[n]	+
Satis/Advice[o]	.63
Proportion of redundancy:	23%
Canonical correlation:	.90
Percent of variance:	38%
χ^2:	125.16*
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 36$.

Continued ...

TABLE J-3 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p < .05$.

TABLE J-4

Canonical Analysis with Satisfaction Measures as Dependent Variables: Radiotherapy Unit

Independent Variable	Structure correlation Function
	Variate 1
Subject sex	+
Subject age	+
Patient age	-.29
Patient sex	+
Patient reaction	.25
Number of good friends	.55
Number of relatives	+
Interaction/relatives[a]	+
Self involvement	-.26
Instrumental before[b]	.30
Emotional before[c]	.44
Instrumental during[d]	.46
Emotional during[e]	+
Instrumental desired[f]	.46
Emotional desired[g]	-.37
Affect/Arousal/Total[h]	+
Task Ambiguity/Total[i]	+
Personal Cost/Total[j]	+
Dependent Variable	Variate 2
Satis/Companionship[k]	-.56
Satis/Understanding[l]	+
Satis/Practical Help[m]	.36
Satis/Expression[n]	-.49
Satis/Advice[o]	+
Proportion of redundancy:	10%
Canonical correlation:	.84
Percent of variance:	43%
χ^2:	111.59*
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 47$.

Continued ...

TABLE J-4 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p = .12$.

TABLE J-5

Canonical Analysis with Satisfaction Measures as Dependent Variables: Chemotherapy Unit

Independent Variable	Structure Correlation Function
	Variate 1
Subject sex	-.33
Subject age	+
Patient age	.52
Patient sex	.34
Patient reaction	+
Number of good friends	+
Number of relatives	+
Interaction/relatives[a]	+
Self involvement	+
Instrumental before[b]	+
Emotional before[c]	+
Instrumental during[d]	+
Emotional during[e]	+
Instrumental desired[f]	+
Emotional desired[g]	+
Affect/Arousal/Total[h]	+
Task Ambiguity/Total[i]	+
Personal Cost/Total[j]	+
Dependent Variable	Variate 2
Satis/Companionship[k]	.44
Satis/Understanding[l]	-.62
Satis/Practical Help[m]	+
Satis/Expression[n]	+
Satis/Advice[o]	+
Proportion of redundancy:	13%
Canonical correlation:	.97
Percent of variance:	60%
χ^2:	116.78*
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 28$.

Continued ...

TABLE J-5 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

$^{*}p < .10$.

TABLE J-6

Canonical Analysis with Satisfaction Measures as Dependent Variables: University

Independent Variable	Structure correlation
	Function
	Variate 1
Subject sex	-
Subject age	.29
Patient age	-
Patient sex	-
Patient reaction	-
Number of good friends	-
Number of relatives	-
Interaction/relatives[a]	.25
Self involvement	.21
Instrumental before[b]	-.46
Emotional before[c]	.51
Instrumental during[d]	-.56
Emotional during[e]	.68
Instrumental desired[f]	-.34
Emotional desired[g]	.38
Affect/Arousal/Total[h]	-
Task Ambiguity/Total[i]	-
Personal Cost/Total[j]	-.28
Dependent Variable	Variate 2
Satis/Companionship[k]	-.24
Satis/Understanding[l]	.23
Satis/Practical Help[m]	-.38
Satis/Expression[n]	.62
Satis/Advice[o]	-.35
Proportion of redundancy:	11%
Canonical correlation:	.84
Percent of variance:	50%
χ^2:	149.44*
df:	95

Note. Structure correlation refers to the correlation of each variable with its variate. Correlations are significant at least at $p < .10$. + indicates a nonsignificant correlation. $n = 62$.

Continued ...

TABLE J-6 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p < .001$.

APPENDIX K

CANONICAL WEIGHTS: TOTAL GROUP ANALYSES

TABLE K-1

Canonical Weights: Support Problems as Dependent Variables

Independent Variable	Canonical Weight
	Function
	Variate 1
Subject sex	.05
Subject age	.01
Patient age	-.07
Patient sex	.11
Patient reaction	.20
Number of good friends	-.03
Number of relatives	-.30
Interaction/relatives[a]	.32
Self involvement	.22
Instrumental before[b]	.23
Emotional before[c]	.01
Instrumental during[d]	-.09
Emotional during[e]	.06
Instrumental desired[f]	-.11
Emotional desired[g]	-.05
Satis/Companionship[h]	-.38
Satis/Understanding[i]	-.08
Satis/Practical Help[j]	-.21
Satis/Expression[k]	-.05
Satis/Advice[l]	-.04
Dependent Variable	Variate 2
Affect Arousal/Total[m]	.27
Task Ambiguity/Total[n]	-.66
Personal Cost/Total[o]	-.66
Canonical correlation:	.69
Percent of variance:	74%
χ^2:	136.11*
df:	63

Note. N = 157. Canonical weight refers to the weight assigned to each variable in computing the canonical functions.

Continued ...

TABLE K-1 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Satisfaction with Companionship. [i] Satisfaction with Empathic Understanding. [j] Satisfaction with Practical Help. [k] Satisfaction with Emotional Expression. [l] Satisfaction with Advice. [m] Affect Arousal across all supports. [n] Task Ambiguity across all supports. [o] Personal Cost across all supports.

*$p < .001$.

TABLE K-2

Canonical Weights: Satisfaction Measures as Dependent Variables

Independent Variable	Canonical Weight Function 1	 Function 2
	Variate 1	Variate 1
Subject sex	-.05	-.10
Subject age	-.34	.14
Patient age	.05	.20
Patient sex	.09	-.21
Patient reaction	-.12	-.59
Number of good friends	.03	-.08
Number of relatives	-.09	.08
Interaction/relatives[a]	.14	.13
Self involvement	-.35	-.01
Instrumental before[b]	-.13	-.22
Emotional before[c]	-.15	.01
Instrumental during[d]	.21	-.28
Emotional during[e]	.07	.65
Instrumental desired[f]	.06	-.04
Emotional desired[g]	.13	.18
Affect/Arousal/Total[h]	-.20	-.20
Task Ambiguity/Total[i]	.46	.02
Personal Cost/Total[j]	.26	.12
Dependent Variable	Variate 2	Variate 2
Satis/Companionship[k]	.37	-.12
Satis/Understanding[l]	.16	.26
Satis/Practical Help[m]	.41	-.40
Satis/Expression[n]	.10	1.00
Satis/Advice[o]	.22	-.50
Canonical correlation:	.74	.66
Percent of variance:	49%	31%
χ^2:	255.91*	144.30*
df:	95	72

Note. *N* = 157. Canonical weight refers to the weight assigned to each variable in computing the canonical functions.

Continued ...

TABLE K-2 (Continued)

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[a] Interaction among relatives. [b] Instrumental support before illness. [c] Emotional support before illness. [d] Instrumental support during illness. [e] Emotional support during illness. [f] Instrumental support desired by patient. [g] Emotional support desired by patient. [h] Affect Arousal across all supports. [i] Task Ambiguity across all supports. [j] Personal Cost across all supports. [k] Satisfaction with companionship. [l] Satisfaction with Empathic Understanding. [m] Satisfaction with Practical help. [n] Satisfaction with Emotional Expression. [o] Satisfaction with advice.

*$p < .001$.

APPENDIX L

PREDICTORS OF SUPPORT PROBLEM SCALES

TABLE L-1

Predictors of Support Problems Across All Support-Types

Support Problem	Predictors	Beta	F	R^2	Overall F
Affect Arousal					
	Satis/Help[a]	.16	3.43**		
	Subject age	-.14	2.82**		
	Interaction/ relatives[b]	-.13	3.30**		
	Patient sex	-.15	3.96***		
	Patient reaction	-.15	3.90***		
	Self involvement	-.15	2.98**		
	Subject sex	-.11	2.18*		
				.23	6.20***
Task Ambiguity					
	Satis/Help[a]	.20	5.48***		
	Satis/ Companionship[c]	.21	6.33***		
	Patient sex	-.17	6.71***		
	Satis/Advice[d]	.16	3.63**		
	Patient Reaction	-.16	5.42***		
	Interaction/ relatives[b]	-.16	5.29***		
	Number of relatives	.16	4.89***		
				.36	12.04***
Personal Cost					
	Satis/ Companionship[c]	.28	11.58***		
	Self involvement	-.20	7.06***		

Continued ...

TABLE L-1 (Continued)

Support Problem	Predictors	Beta	F	R^2	Overall F
Personal Cost					
	Interaction/ relatives[b]	-.21	9.24***		
	Number of relatives	.16	4.91***		
	Patient reaction	-.12	3.41**		
	Satis/Help[a]	.15	3.15**		
				.36	14.24***

Note. N = 157.

[a] Satisfaction with Practical Help. [b] Interaction among relatives. [c] Satisfaction with Companionship. [d] Satisfaction with Advice.

*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE L-2

Predictors of Specific Support Problem Scales

Support Problem	Predictors	Beta	F	R^2	Overall F
Physical Help/Help[a]					
	Subject age	-.15	3.22**		
	Interaction/ relatives[b]	-.22	7.40***		
	Self involvement	-.15	3.28**		
	Subject sex	-.15	3.94**		
	Number of relatives	.12	2.36*		
				.16	5.74***
Vulnerability/Exp[c]					
	Self involvement	-.28	15.13***		
	Subject age	-.25	11.21***		
	Subject sex	-.19	7.67***		
	Patient sex	-.16	5.68***		
	Interaction/ relatives[b]	-.16	5.41***		
	Emotional before[d]	-.14	4.24***		
	Patient reaction	-.12	3.28**		
				.34	11.17***
Beliefs/Exp[e]					
	Subject sex	-.21	7.83***		
	Instrumental change[f]	.21	7.39***		
	Patient sex	-.15	3.93**		
	Emotional desired[g]	.13	2.90*		

Continued ...

TABLE L-2 (Continued)

Support Problem	Predictors	Beta	F	R^2	Overall F
Beliefs/Exp[e]					
	Subject age	-.11	2.23		
				.15	5.37***
Feelings/Adv[h]					
	Self involvement	-.22	6.75***		
	Patient reaction	-.13	2.83*		
	Subject age	-.14	2.60*		
	Instrumental desired[i]	.13	2.79*		
	Emotional before[d]	-.12	2.37*		
	Patient sex	-.11	2.31*		
				.17	5.20***
Vulnerability/ Und[j]					
	Subject age	-.20	6.05***		
	Self involvement	-.20	6.19***		
	Emotional before[d]	-.26	8.67***		
	Patient sex	-.15	4.29***		
	Patient reaction	-.19	6.64***		
	Emotional during[k]	.19	4.41***		
	Interaction/ relatives[b]	-.12	2.69*		
				.22	6.17***

Continued ...

TABLE L-2 (Continued)

Support Problem	Predictors	Beta	F	R^2	Overall F
Communication/Und[l]					
	Self involvement	-.24	8.63***		
	Subject age	-.22	7.37***		
	Instrumental disc.[m]	.15	4.49***		
	Interaction/ relatives[b]	-.15	4.59***		
	Patient sex	-.15	4.28***		
	Instrumental before[n]	-.13	2.99**		
	Patient reaction	-.11	2.31*		
				.24	6.85***

Note. N = 157.

[a] Physical Help/Practical Help. [b] Interaction among relatives. [c] Vulnerability/Emotional Expression. [d] Emotional support before illness. [e] Beliefs/Emotional Expression. [f] Change in instrumental support during. [g] Emotional support desired by patient. [h] Feelings/Advice. [i] Instrumental support desired by patient. [j] Vulnerability/Empathic Understanding. [k] Emotional support during illness. [l] Communication/Empathic Understanding. [m] Discrepancy between instrumental support during and desired.
[n] Instrumental support before illness.

$*p < .05$. $**p < .01$. $***p < .001$.

APPENDIX M

SAMPLE OF PRE-TEST INSTRUCTIONS AND ITEMS

This is a study on the problems that family and friends have in providing care and support to cancer patients. Sometimes people are not sure of what is appropriate, or what is really expected of them. At other times, they may know what to do but for some reason they cannot. This research seeks to identify some of the reasons why they do not give as much support as the patient seeks or desires. Understanding the problems of support persons might help us to improve eventually the quality of support given.

There are different kinds of support that a patient may desire. At the top of the question sheet, you will find one such type of support described. Below it are items that apply specifically to that kind of support. You are to respond to those items, keeping in mind that type of support. Mark your answers on the answer sheet provided.

Read each of the items, keeping in mind the type of support described. Respond to each statement in terms of the degree to which it expresses the kind of problems that you have had in giving the support described, if you have had any experience with a cancer patient or other seriously ill patient. If you have had no such experience, answer as you believe you would if you had had such experience.

Rate each statement on the attached answer sheet according to the degree of agreement with the item. Mark the appropriate letter on the answer sheet as follows:

Mark A - if you Strongly Disagree

Mark B - if you Disagree

Mark C - if you are Undecided

Mark D - if you Agree

Mark E - if you Strongly Agree

Use a pencil in marking the answer sheet. Remember, there are no right or wrong answers. Remember to write the type of support on the top of the answer sheet. WRITE STUDENT NUMBER ON ANSWER SHEET AND FILL IN SPACES FOR IT. NO OTHER MARKINGS ARE NECESSARY.

****

Experience with Cancer Patient: Very little_____ Some_____ Great deal_____

If little, check one of the following:

Responding in terms of experience with some other serious illness______

Responding in terms of problems I would expect to have ______

STUDENT NUMBER______________ SEX: male_________ female________

Canadian Born: Yes_____ No ______ If NO, write in country of origin___________

Number of years in Canada___________.

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

I was reluctant to give this kind of help because:

1. I was not sure of the specific actions needed...
2. I wasn't sure how the patient's needs could be met...
3. I wasn't sure of the best way to go about it...
4. It was hard to tell whether or not I was doing the right thing...
5. I didn't think this would be very important to a cancer patient...
6. The patient gave me "mixed messages" regarding what was expected...
7. I think I misunderstood the patient's needs...
8. I wasn't sure how the patient wanted to be treated...
9. I couldn't figure out what the patient really wanted or expected...
10. It wasn't at all clear to me that the patient wanted or needed this...
11. I do not believe that I really could have helped...
12. I did not feel that the patient required this...
13. I felt it was better not to "remind" the patient of his/her situation...
14. I did not know how to respond to the patient's needs...
15. I felt that sometimes my comments and actions were inappropriate...
16. I was afraid of saying or doing the wrong thing...
17. I thought I might do more harm than good...
18. I felt like I didn't have the proper skills...
19. The patient seemed to be relying on others...
20. Someone who was closer to the patient than I was should have...
21. I didn't think it was my responsibility...
22. It makes me uncomfortable when someone depends on me too much...
23. Sometimes I resented the demands the patient made on me...

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

I was reluctant to give this kind of help because:

24. It wouldn't have been worth it, for all the effort it would have taken on my part...

25. I would have had to neglect my own needs too much...

26. My responsibilities elsewhere didn't give me time...

27. Nobody seemed to appreciate what I did...

28. The patient sometimes was not very appreciative...

29. I hurt too much when the patient hurt...

30. I felt vulnerable to the same fate...

31. I felt too depressed when I was with the patient...

32. Being around the patient really disturbed me too much...

33. I was having such a hard time coping with the illness...

34. I felt too anxious when I was with the patient...

35. I was getting too worn out...

36. I would have felt too much strain...

37. It just became too much for me...

38. I was afraid to let on certain things that I knew...

39. There was no way for me to tell if I had done any good...

40. I had no way to judge when the patient's needs were met...

41. I didn't feel any obligation to help the patient...

42. I would not be expected to, given my relationship to the patient (i.e., family or friend)...

43. I didn't want the patient to feel like he/she owed me anything...

44. The patient and I never did things like this for each other before...

45. The patient wouldn't have done it for me if I were sick...

46. The patient almost made me feel it was my duty to help sometimes...

47. I feel it is not really necessary for a sick person...

Type of Support - EMPATHIC UNDERSTANDING: Having an accurate perception of patient's feelings and thoughts; accurately reflecting how patient feels, even when he/she cannot put it into words; seeing things through the patient's eyes.

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

1. When I was depressed over the illness, it was hard to do this.
2. I wasn't sure of the best way to go about it: the task was unclear.
3. It was difficult for me to understand what the patient was going through.
4. I don't want someone else to depend upon me too much.
5. It was hard to tell if this was the right thing to do.
6. I didn't always have enough time because of other responsibilities.
7. I had difficulty in relating to the patient in the same way because of changes in his/her personality.
8. The added strain from doing this would have been too much for me.
9. It was hard to tell when this need was satisfied or how much more was required.
10. I felt so threatened by the patient's condition that I couldn't be too empathic.
11. When I became anxious about the patient, I couldn't do this very well.
12. I did not try to understand what the patient was experiencing, because it depressed me.
13. Someone else was doing this; I was better in providing a different kind of help.
14. I sometimes found it hard to understand why the patient was so upset.
15. The patient almost made me feel it was my duty to help sometimes.
16. I hurt so when the patient hurt that I couldn't do this very well.
17. I have never had a similar experience, so I could not understand.
18. I was doing more than my fair share already.
19. Being around the patient really disturbed me too much to do this.
20. It was difficult to choose the specific kind of action most useful for achieving this goal.
21. It was just too painful to open myself up to the patient's experience.
22. I wasn't sure how the patient wished to be treated.
23. I didn't think it was my responsibility to do this.
24. I wasn't sure how such needs of the patient best could be met.
25. The patient did not reveal enough for me to understand him/her.
26. I had no idea how to communicate my understanding to the patient.

30. I feel that I was/would be EFFECTIVE in providing this kind of support.

Type of Support – PRACTICAL HELP: Giving material and physical assistance to patient; giving of time and services; taking care of patient's children; helping with duties requiring physical exertion; providing transportation, etc.

A	B	C	D	E
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

1. When I was depressed over the illness, it was hard to do this.
2. I wasn't sure of the best way to go about it: the task was unclear.
3. I was afraid that if I did too much for the patient, he/she would become too dependent on me.
4. I don't want someone else to depend upon me too much.
5. It was hard to tell if this was the right thing to do.
6. I didn't always have enough time because of other responsibilities.
7. I simply did not have the means to offer such help to the patient.
8. The added strain from doing this would have been too much for me.
9. It was hard to tell when this need was satisfied or how much more was required.
10. Helping in this way was too costly in terms of time and money for me.
11. When I became anxious about the patient, I couldn't do this very well.
12. I was afraid to give the patient any physical care, because I might injure him/her somehow.
13. Someone else was doing this; I was better in providing a different kind of help.
14. I couldn't always be there, so I didn't want the patient to depend on me.
15. The patient almost made me feel it was my duty to help sometimes.
16. I hurt so when the patient hurt that I couldn't do this very well.
17. I became too exhausted to keep doing things for the patient.
18. I was doing more than my fair share already.
19. Being around the patient really disturbed me too much to do this.
20. It was difficult to choose the specific kind of action most useful for achieving this goal.
21. I got discouraged because it seemed I would have to help for a long time.
22. I wasn't sure how the patient wished to be treated.
23. I didn't think it was my responsibility to do this.
24. I wasn't sure how such needs of the patient best could be met.
25. Other people seemed to be taking care of everything.
26. I would have embarassed the patient if I had offered to do such things for him/her.
27. It made me feel too uncomfortable to help with much physical care.

30. I feel that I was/would be EFFECTIVE in providing this kind of support.

REFERENCES

Abrams, R. D. (1966). The patient with cancer--His changing pattern of communication. New England Journal of Medicine, 274, 317-322.

Abrams, R. D., & Finesinger, J. E. (1953). Guilt reactions in patients with cancer. Cancer, 6, 474-482.

Achté, K. A., & Vauhkonen, M. L. (1971). Cancer and the psyche. Omega, 2, 46-56.

Albrecht, G. L., Walker, V. G., & Levy, J. A. (1982). Social distance from the stigmatized: A test of two theories. Social Science and Medicine, 16, 1319-1327.

American Cancer Society (1980). Public attitudes toward cancer and cancer tests. CA-A Cancer Journal for Clinicians, 30, 92-98.

Andrews, G., Tennant, C., Hewson, D. M., & Vaillant, G. E. (1978). Life event stress, social support, coping style, and risk of psychological impairment. Journal of Nervous and Mental Disease, 166, 307-316.

Aneshensel, C. S., & Stone, J. D. (1982). Stress and depression: A test of the buffering model of social support. Archives of General Psychiatry, 39, 1392-1396.

Artiss, K. L., & Levine, A. S. (1973). Doctor-patient relation in severe illness. New England Journal of Medicine, 288, 1210-1214.

Barckley, V. (1967). The crises in cancer. American Journal of Nursing, 67, 278-280.

Bard, M. (1952). The sequence of emotional reactions in radical mastectomy patients. Public Health Reports, 67, 1144-1148.

Bard, M. (1972). The psychological impact of cancer and cancer surgery. Proceedings of the American Cancer Society's National Conference on Human Values and Cancer, 24-26, Atlanta.

Barrera, M. (1981). Social support in the adjustment of pregnant adolescents: Assessment issues. In B. H. Gottlieb (Ed), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Bar-Tal, D. (1976). Prosocial behavior: Theory and research. Washington: Hemisphere Publishing Corporation.

Bean, G., Cooper, S., Alpert, R., & Kipnis, D. (1980). Coping mechanisms of cancer patients: A study of 33 patients receiving chemotherapy. CA-A Cancer Journal for Clinicians, 30, 256-259.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 6). New York: Academic Press.

Berkowitz, L. (1969). Resistance to improper dependency relationships. Journal of Experimental Social Psychology, 5, 283-294.

Berkowitz, L. (1972). Social norms, feelings, and other factors affecting helping and altruism. In L. Berkowtiz (Ed.), Advances in experimental social psychology (Vol. 6). New York: Academic Press.

Berkowitz, L. (1973). Reactance and the unwillingness to help others. Psychological Bulletin, 79, 310-317.

Binger, C. M., Ablin, A. R., Feuerstein, R. C., Kushner, J. H., Zoger, S., & Mikkelson, C. (1969). Childhood leukemia: Emotional impact on patient and family. New England Journal of Medicine, 280, 414-418.

Bloom, J. R. (1979). Psychosocial measurement and specific hypotheses: A research note. Journal of Consulting and Clinical Psychology, 47, 637-639. (a)

Bloom, J. R. (1979). Social support, coping, and adjustment to mastectomy. *American Association for Cancer Research: Proceedings*, *20*, 360. (b) (Abstract)

Bloom, J. R. (1982). Social support, accommodation to stress and adjustment to breast cancer. *Social Science and Medicine*, *16*, 1329-1338.

Blumberg, B., Flaherty, M., & Lewis, J. (1980). *Coping with cancer: A resource for the health professional*. (U. S. Department of Health and Human Services, National Institutes of Health Publication No. 80-2080). Washington, D.C.: U.S. Government Printing Office.

Boeck, M., & Leventhal, B. (1979). The adolescent cancer patient: Social function and mood. *American Association for Cancer Research: Proceedings*, *20*, 430. (Abstract)

Bond, S. (1982). Communicating with families of cancer patients: 1. The relatives and doctors. *Nursing Times*, *78*, 962-965.

Bozeman, M. F., Orbach, C. E., & Sutherland, A. M. (1955). Psychologial impact of cancer and its treatment. III. Adaptation of mothers to threatened loss of their children through leukemia. Part I. *Cancer*, *8*, 1-19.

Bromet, E., & Moos, R. H. (1977). Environmental resources and the posttreatment functioning of alcoholic patients. *Journal of Health and Social Behavior*, *18*, 326-338.

Bukberg, J. B., & Holland, J. C. (1980). A prevalence study of depression in a cancer hospital population. *American Association for Cancer Research: Proceedings*, *21*, 382. (Abstract)

Cantor, R. C. (1978). And a time to live: Toward emotional well-being during the crisis of cancer. New York: Harper & Row.

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

Caplan, R. (1979). Patient, provider, and organization: Hypothesized determinants of adherence. In S. J. Cohen (Ed.), New directions in patient compliance. Lexington: D. C. Heath.

Carey, R. C. (1974). Emotional adjustment in terminal patients: A quantitative approach. Journal of Counseling Psychology, 21, 433-439.

Carveth, W. B., & Gottlieb, B. H. (1979). The measurement of social support and its relation to stress. Canadian Journal of Behavioural Science, 11, 179-188.

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

Cassileth, B. R., & Hamilton, J. N. (1979). The family with cancer. In B. R. Cassileth (Ed.), The cancer patient: Social and medical aspects of care. Philadelphia: Lea & Febiger.

Cassileth, B. R., Zupkis, R. V., Sutton-Smith, K., & March, V. (1980). Information and participation preferences among cancer patients. Annals of Internal Medicine, 92, 832-836.

Castles, M., & Keith, P. (1979). Patient concerns, emotional resources, and perception of nurse and patients roles. Omega, 10, 27-33.

Clayton, P. J., Halikas, J. A., & Maurice, W. L. (1972). The depression of widowhood. British Journal of Psychiatry, 120 (554), 71-77.

Coates, D., & Wortman, C. B. (1980). Depression maintenance and interpersonal control. In A. Baum & E. J. Singer (Eds.), Advances in environmental psychology, Vol. 2: Applications of personal control. Hillsdale: Lawrence Erlbaum Associates.

Coates, D., Wortman, C. B., & Abbey, A. (1979). Reactions to victims. In I. H. Frieze, D. Bar-Tal, & J. S. Carroll (Eds.), New approaches to social problems. San Francisco: Jossey-Bass.

Cobb, B. (1956). Nurse-patient relationships. Journal of the American Geriatric Society, 4, 690-698.

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

Cobliner, W. G. (1977). Psychosocial factors in gynecological or breast malignancies. Hospital Physician, 13 (10), 38-40.

Cohen, F., & Lazarus, R. S. (1979). Coping with the stresses of illness. In G. C. Stone, F. Cohen, & N. E. Adler (Eds.), Health psychology--A handbook. San Francisco: Jossey-Bass.

Cohen, M., & Wellisch, D. (1978). Living in limbo: Psychosocial intervention in families with a cancer patient. American Journal of Psychotherapy, 32, 561-571.

Coyne, J. C. (1976). Depression and the response of others. Journal of Abnormal Psychology, 85, 186-193.

Craig, T. J., & Abeloff, M. D. (1974). Psychiatric symptomatology among hospitalized cancer patients. American Journal of Psychiatry, 131, 1323-1327.

Crary, W. G., & Crary, G. C. (1974). Emotional crises and cancer. CA-A Cancer Journal for Clinicians, 24, 36-39.

Darley, J. M., & Latané, B. (1970). Norms and normative behavior: Field studies of social interdependence. In J. Macauley & L. Berkowitz (Eds.), Altruism and helping behavior. New York: Academic Press.

Davidson, T. N., Bowden, L., & Tholen, D. (1979). Social support as a moderator of burn rehabilitation. Archives of Physical Medicine and Rehabilitation, 60, 566. (Abstract)

Dean, A., & Lin, N. (1977). The stress-buffering role of social support: Problems and prospects for systematic investigation. Journal of Nervous and Mental Disease, 165, 403-417.

DiMatteo, M. R. (1979). A social psychological analysis of physician-patient rapport: Toward a science of the art of medicine. Journal of Social Issues, 35 (1), 12-33.

DiMatteo, M., & Hays, R. (1981). Social support and serious illness. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Dimond, M. (1979). Social support and adaptation to chronic illness: The case of maintenance hemodialysis. Research in Nursing and Health, 2, 101-108.

Dubrey, R., & Terrill, L. (1975). The loneliness of the dying person: An exploratory study. Omega, 6, 357-371.

Dunkel-Schetter, C. A. (1982). Social support and coping with cancer. Dissertation Abstracts International, 43, 2037-B. (University Microfilms No. 82-25912)

Dunphy, J. E. (1977). On caring for the patient with cancer. American Cancer Society Professional Education Publication (No. 3349-PE).

Dyk, R. B., & Sutherland, A. M. (1956). Adaptation of the spouse and other family members to the colostomy patient. Cancer, 9, 123-138.

Eckenrode, J., & Gore, S. (1981). Stressful events and social supports: The significance of context. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

English, R. W. (1977). Correlates of stigma toward physically disabled persons. In R. Marinelli & A. Dell Orto (Eds.), The psychological and social impact of physical disability. New York: Springer Publishing Company.

Erickson, R. C., & Hyerstay, B. J. (1974). The dying patient and the double-bind hypothesis. Omega, 5, 287-298.

Feder, S. L. (1965). Psychological considerations in the care of patients with cancer. Annals of the New York Academy of Sciences, 125, 1020-1027.

Finlayson, A. (1976). Social networks as coping resources: Lay help and consultation patterns used by women in husbands' post-infarction career. Social Science and Medicine, 10, 97-103.

Fisher, J. D., Nadler, A., & Whitcher-Alagna, S. (1982). Recipient reactions to aid. Psychological Bulletin, 91, 27-54.

Fisher, R. (1981). A patient's perspective on the human side of cancer. Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, 147-150, Washington, D.C.

Funch, D. P., & Marshall, J. (1983). The role of stress, social support and age in survival from breast cancer. Journal of Psychosomatic Research, 27, 77-83.

Funch, D. P., & Mettlin, C. (1982). The role of support in relation to recovery from breast surgery. Social Science and Medicine, 16, 91-98.

Garner, H. (1977). Somatopsychic concepts. In R. Marinelli & A. Dell Orto (Eds.), The psychological and social impact of physical disability. New York: Springer Publishing Company.

Giacquinta, B. (1977). Helping families face the crisis of cancer. American Journal of Nursing, 77, 1585-1588.

Glaser, B. G., & Strauss, A. L. (1964). Awareness contexts and social interaction. American Sociological Review, 29, 669-679.

Goldberg, R. J. (1981). Management of depression in the patient with advanced cancer. Journal of the American Medical Association, 246, 373-376.

Gordon, W. A., Freidenbergs, I., Diller, L., Hibbard, M., Wolf, C., Levine, L., Lipkins, R., Ezrachi, O., & Lucido, D. (1980). Efficacy of psychosocial intervention with cancer patients. Journal of Consulting and Clinical Psychology, 48, 743-759.

Gore, S. (1978). The effect of social support in moderating the health consequences of unemployment. Journal of Health and Social Behavior, 19, 157-165.

Gottlieb, B. H. (1978). The development and application of a classification scheme of informal helping behaviours. Canadian Journal of Behavioural Science, 10, 105-115.

Gottlieb, B. H. (1981). Social networks and social support in community / mental health. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Gottlieb, B. H. (1983). Social support as a focus for integrative research in psychology. American Psychologist, 38, 278-287.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25, 161-178.

Greenleigh Associates (1980). Report on the social, economic, and psychological needs of cancer patients in California: Summarized review and analysis. American Cancer Society, California Division.

Greenwald, H. P. (1980). Social problems in cancer control. Massachusetts: Ballinger Publishing Company.

Greenwald, H. P., & Nevitt, M. C. (1982). Physician attitudes toward communication with cancer patients. Social Science and Medicine, 16, 591-594.

Grobe, M. E., Ahmann, D. O., & Ilstrup, D. M. (1982). Needs assessment for advanced cancer patients and their families. Oncology Nursing Forum, 9 (4), 26-30.

Gross, A. E., & McMullen, P. A. (1982). The help-seeking process. In V. J. Derlega & J. Grzelak (Eds.), Cooperation and helping behavior: Theories and Research. New York: Academic Press.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Grablowsky, B. J. (1979). Multivariate data analysis. Tulsa: Petroleum Publishing Co.

Heller, K. (1979). The effects of social support: Prevention and treatment implications. In A. P. Goldstein & F. H. Kanfer (Eds.), Maximizing treatment gains: Transfer enhancement in psychotherapy. New York: Academic Press.

Henderson, S. (1977). The social network, support and neurosis: The function of attachment in adult life. British Journal of Psychiatry, 131, 185-191.

Herzoff, N. E. (1979). A therapeutic group for cancer patients and their families. Cancer Nursing, 2, 469-474.

Himmelsbach, K. K. (1977). Social work with the cancer patient. Proceedings of the American Cancer Society Second National Conference on Human Values and Cancer.

Hirsch, B. (1979) Psychologic dimensions of social networks. American Journal of Community Psychology, 7, 263-277.

Hirsch, B. J. (1980). Natural support systems and coping with major life changes. American Journal of Community Psychology, 8, 159-172.

Hirsch, B. J. (1981) Social networks and the coping process: Creating personal communities. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Holahan, C. J., & Moos, R. H. (1982). Social support and adjustment: Predictive benefits of social climate indices. American Journal of Community Psychology, 10, 403-315.

Holland, J. C. (1979). Psychologic aspects of cancer. In M. Renneker & S. Leib (Eds.), Understanding cancer. Palo Alto: Bull Publishing Company.

Holland, J. C. (1980). Interview: Understanding the cancer patient. CA-A Cancer Journal for Clinicians, 30, 103-112.

Holland, J. C. (1981). The humanistic side of cancer care: Changing issues and challenges. Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, 1-13, Washington, D.C.

Jamison, K. R., Wellisch, D. K., & Pasnau, R. O. (1978). Psychosocial aspects of mastectomy: I. The woman's perspective. American Journal of Psychiatry, 135, 432-436.

Kalnins, I. V., & Churchill, P. M. (1981). Chronic life-threatening illness: Perspectives from children with leukemia. Paper presented at the Conference on the Canadian Child in the Eighties, Mount Saint Vincent University, Halifax.

Kaplan, B. H., Cassel, J. C., & Gore, S. (1977). Social support and health. Medical Care, 15 (5), 47-58. (Supplement)

Kaplan, D. M., Grobstein, R., & Smith, A. (1976). Severe illness in families. Health and Social Work, 1 (3), 72-81.

Knight, M., & Field, D. (1981). A silent conspiracy: Coping with dying cancer patients on an acute surgical ward. Journal of Advanced Nursing, 6, 221-229.

Knopf, A. (1976). Changes in women's opinions about cancer. Social Science and Medicine, 10, 191-195.

Krant, M. J. (1972). What does the patient know? Proceedings of the American Cancer Society's National Conference on Human Values and Cancer, 48-49, Atlanta.

Krant, M. J. (1981). What cancer means to society. Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, 15-19, Washington, D.C.

Krant, M. J., Doster, N. J., & Ploof, S. (1980). Meeting the needs of the late-stage elderly cancer patient and family: A clinical model. Journal of Geriatric Psychiatry, 13 (1), 53-61.

LaGaipa, J. J. (1977). Interpersonal attraction and social exchange. In S. W. Duck (Ed.), Theory and practice in interpersonal attraction. London: Academic Press.

LaGaipa, J. J. (1981). A systems approach to personal relationships. In S. W. Duck & R. Gilmour (Eds.), Personal relations 1: Studying personal relations. New York: Academic Press.

LaRocco, J. M., House, J. S., & French, J. R. (1980). Social support, occupational stress, and health. Journal of Health and Social Behavior, 21, 202-218.

Lerner, M. J. (1971). Observer's evaluation of a victim: Justice, guilt and veridical perception. Journal of Personality and Social Psychology, 20, 127-135.

Lerner, M. J. (1974). Social psychology of justice and interpersonal attraction. In T. Huston (Ed.), Perspectives on interpersonal attraction. New York: Academic Press.

Lerner, M. J., & Simmons, C. H. (1966). Observer's reaction to the "innocent victim": Compassion or rejection? Journal of Personality and Social Psychology, 4, 203-210.

Lesser, R., & Watt, M. (1978). Untrained community help in the rehabilitation of stroke sufferers with language disorder. British Medical Journal, 2, 1045-1048.

Lewis, M. S., Gottesman, D., & Gutstein, S. (1979). The course and duration of crisis. Journal of Consulting and Clinical Psychology, 47, 128-134.

Lin, N., Ensel, W. M., Simeone, R. S., & Kuo, W. (1979). Social support, stressful life events, and illness: A model and an empirical test. Journal of Health and Social Behavior, 20, 108-119.

Linn, M. W., Linn, B. S., & Harris, R. (1982). Effects of counseling for late stage cancer patients. Cancer, 49, 1048-1055.

Litman, T. J. (1966). The family and physical rehabilitation. Journal of Chronic Diseases, 19, 211-217.

Litwak, E., & Szelenyi, I. (1969). Primary group structures and their functions: Kin, neighbors, and friends. American Sociological Review, 34, 465-481.

Mages, N. L., & Mendelsohn, G. A. (1979). Effects of cancer on patients' lives: A personological approach. In G. C. Stone, F. Cohen, & N. E. Adler (Eds.), Health psychology--A handbook. San Francisco: Jossey-Bass.

Maguire, P. (1975). The psychological and social consequences of breast cancer. Nursing Mirror, 140 (14), 54-57.

Maher, E. L. (1982). Anomic aspects of recovery from cancer. Social Science and Medicine, 16, 907-912.

Maisiak, R., Cain, M., Yarbro, C. H., & Josof, L. (1981). Evaluation of TOUCH: An oncology self-help group. Oncology Nursing Forum, 8 (3), 20-25.

McFate, P. A. (1979). Ethical issues in the treatment of cancer patients. In B. R. Cassileth (Ed.), The cancer patient: Social and medical aspects of care. Philadelphia: Lea & Febiger.

McIntosh, J. (1974). Processes of communication, information seeking and control associated with cancer: A selective review of the literature. Social Science and Medicine, 8, 167-187.

McIntosh, J. (1977). Communication and awareness in a cancer ward. London: Croom Helm, Ltd.

Meyerowitz, B. E. (1980). Psychosocial correlates of breast cancer and its treatment. Psychological Bulletin, 87, 108-131.

Meyerowitz, B. E., Sparks, F. C., & Spears, I. K. (1979). Adjuvant chemotherapy for breast carcinoma: Psychosocial implications. Cancer, 43, 1613-1618.

Miller, C. L., Denner, P. R., & Richardson, V. E. (1976). Assisting the psychosocial problems of cancer patients: A review of current research. International Journal of Nursing Studies, 13, 161-166.

Milton, G. W. (1973). Thoughts in mind of a person with cancer. British Medical Journal, 4 (5886), 221-223.

Mitchell, G. W., & Glicksman, A. S. (1977). Cancer patients: Knowledge and attitudes. Cancer, 40, 61-66.

Moos, R. H., & Tsu, V. D. (1977). The crisis of physical illness: An overview. In R. H. Moos (Ed.), Coping with physical illness. New York: Plenum Medical Book Company.

Morris, T., Greer, S., & White, P. (1977). Psychological and social adjustment to mastectomy: A two year follow-up. Cancer, 40, 2381-2387.

Morrow, G., & Morse, I. (1979). Significance and sources of support for parents of pediatric oncology patients. American Association for Cancer Research: Proceedings, 20, 363. (Abstract)

Moses, R., & Cividali, N. (1965). Differential levels of awareness of illness: Their relation to some salient features in cancer patients. Annals of the New York Academy of Sciences, 125, 984-994.

Nannis, E., Susman, E., Strope, B., Woodruff, P., Hersch, S., Levine, A., & Pizzo, P. (1982). Correlates of control in pediatric cancer patients and their families. Journal of Pediatric Psychology, 7, 75-84.

Nelson, K. R. (1972). Understanding--The difficult art. Proceedings of the American Cancer Society's National Conference on Human Values and Cancer, 58-60, Atlanta.

Oken, D. (1961). What to tell cancer patients: A study of medical attitudes. Journal of the American Medical Association, 175, 1120-1128.

Peters-Golden, H. (1982). Breast cancer: Varied perceptions of social support in the illness experience. Social Science and Medicine, 16, 483-491.

Piliavin, J. A., Dovidio, J. F., Gaertner, S. L., & Clark, R. D. (1981). Emergency intervention. New York: Academic Press.

Pilisuk, M., & Froland, C. (1978). Kinship, social networks, social support and health. Social Science and Medicine, 12, 273-280.

Pinkerton, S., & McAleer, C. (1976). Influence of client diagnosis--cancer--on counselor decision. Journal of Counseling Psychology, 23, 575-578.

Porritt, D. (1979). Social support in crisis: Quantity or quality. Social Science and Medicine, 13A, 715-721.

Quenneville, Y., Falardeau, M., & Rochette, D. (1981-82). Evaluation of staff support system in a palliative care unit. Omega, 12, 355-358.

Quint, J. C. (1965). Institutionalized practices of information control. Psychiatry, 28, 119-132.

Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. Science, 194, 1013-1020.

Rainey, L. C. (1983). Cancer counseling via telephone help-line: The U.C.L.A. Psychosocial Cancer Counseling Line. Paper presented at the Annual Meeting of the American Psychiatric Association, New York.

Renneker, R., & Cutler, M. (1952). Psychological problems of adjustment to cancer of the breast. Journal of the American Medical Association, 148, 833-838.

Renneker, M., & Leib, S. (1979). Understanding cancer. Palo Alto: Bull Publishing Company.

Revenson, T. A., Wollman, C. A., & Felton, B. J. (1983). Social supports as stress buffers for adult cancer patients. Psychosomatic Medicine, 45, 321-331.

Rosenbaum, E. H., Rosenbaum, I. R., Sweet, A., & Mohr, A. (1981). Audio aids in improving communication with patients. Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, 51-57, Washington, D.C.

Rosillo, R. H., Welty, M. J., & Graham, W. B. (1973). The maxillo-facial cancer--II. The psychologic aspect. Nursing Clinics of North America, 8, 153-158.

Rosser, J., & Maguire, P. (1982). Dilemmas in general practice: The care of the cancer patient. Social Science and Medicine, 16, 315-322.

Safilios-Rothschild, C. (1970). The study of family power structure. Journal of Marriage and the Family, 32, 539-552.

Safilios-Rothschild, C. (1976). A macro- and micro-examination of family power and love: An exchange model. Journal of Marriage and the Family, 37, 355-362.

Salloway, J. C., & Dillon, P. B. (1973). A comparison of family networks and friend networks in health care utilization. Journal of Comparative Family Studies, 4, 131-142.

Schopler, J., & Matthews, M. W. (1965). The influence of the perceived causal locus of partner's dependence on the use of interpersonal power. Journal of Personality and Social Psychology, 2, 609-612.

Schwartz, S. H., & Howard, J. A. (1982). Helping and cooperation: A self-based motivational model. In V. J Derlega & J. Grzelak (Eds.), Cooperation and helping behavior: Theories and research. New York: Academic Press.

Severo, R. (1977). Cancer: More than a disease, for many a silent stigma. New York Times, May 4.

Silberfarb, P. M. (1982). Research in adaptation to illness and psychosocial intervention: An overview. Cancer, 50, 1921-1925. (November 1 Supplement)

Silberfarb, P. M., & Greer, S. (1982). Psychological concomitants of cancer: Clinical aspects. American Journal of Psychotherapy, 36, 470-478.

Silberfarb, P. M., Maurer, L. H., & Crouthamel, C. S. (1980). Psychosocial aspects of neoplastic disease: I. Functional status of breast cancer patients during different treatment regimens. American Journal of Psychiatry, 137, 450-455.

Silberfarb, P. M., Philibert, D., & Levine, P. M. (1980). Psychosocial aspects of neoplastic disease: II. Affective and cognitive effects of chemotherapy in cancer patients. American Journal of Psychiatry, 137, 597-601.

Silver, R. L., & Wortman, C. B. (1980). Coping with undesirable life events. In J. Garber & M. Seligman (Eds.), Human helplessness. New York: Academic Press.

Sobel, H. J., & Worden, J. W. (1979). The MMPI as a predictor of psychosocial adaptation to cancer. Journal of Consulting and Clinical Psychology, 47, 716-724.

Spinetta, J. J., & Maloney, L. J. (1978). The child with cancer: Patterns of communication and denial. Journal of Consulting and Clinical Psychology, 46, 1540-1541.

Starker, S., & Starker, J. E. (1982-83). A group awaiting death: The social systems perspective on a naturally occurring group situation. Omega, 13, 79-89.

Sutherland, A. M., Orbach, C. E., Dyk, R. B., & Bard, M. (1952). Adaptation to the dry colostomy; preliminary report and summary of findings. Cancer, 5, 857-872.

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

Tolsdorf, C. (1976). Social networks, support and coping. Family Process, 15, 407-417.

Trachtenberg, J. M. (1972). How much does the patient really want to know? Proceedings of the American Cancer Society's National Conference on Human Values and Cancer, 27-31, Atlanta.

Trillin, A. S. (1981). Of dragons and garden peas: A cancer patient talks to doctors. New England Journal of Medicine, 304, 699-701.

Tull, R., Glicksman, A. S., Hilderley, L., & Tefft, M. (1981). Psychosocial support in an oncology facility. American Association for Cancer Research: Proceedings, 22, 394. (Abstract)

Tyre, T. E., Yanchar, R. J., & Tyre, C. T. (1982). Psychological variables in the treatment of cancer: Search for a paradigm. Psychological Reports, 50, 953-954.

Vachon, M., Lyall, W., & Freeman, S. (1978). Measurement and management of stress in health professionals working with advanced cancer patients. Death Education, 1, 365-375.

Walker, K. N., MacBride, A., & Vachon, M. L. (1977). Social support networks and the crisis of bereavement. Social Science and Medicine, 11, 35-41.

Weidman Gibbs, H., & Achterberg-Lawlis, J. (1978). Spiritual values and death anxiety: Implications for counseling with terminal cancer patients. Journal of Counseling Psychology, 25, 563-569.

Weisman, A. D. (1979). Coping with cancer. New York: McGraw-Hill.

Weisman, A. D. (1981). Understanding the cancer patient: The syndrome of "caregiver's plight". Psychiatry, 44, 161-168.

Weisman, A. D., & Worden, J. W. (1975). Psychological analysis of cancer deaths. Omega, 6, 61-75.

Welch, D. (1981). Planning nursing interventions for family members of adult cancer patients. Cancer Nursing, 4, 365-370.

Wellman, B. (1981). Applying network analysis to the study of support. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Wetzel, J. W., & Redmond, F. C. (1980). A person-environment study of depression. Social Service Review, 54, 363-375.

Wilcox, B. L. (1981). Social support in adjusting to marital disruption: A network analysis. In B. H. Gottlieb (Ed.), Social networks and social support (Sage Studies in Community Mental Health, No. 4). Beverly Hills: Sage Publications.

Worden, J. W., & Weisman, A. D. (1977). The fallacy in postmastectomy depression. American Journal of the Medical Sciences, 273 (2), 169-175.

Wortman, C. B., & Dunkel-Schetter, C. (1979). Interpersonal relationships and cancer: A theoretical analysis. Journal of Social Issues, 35, 120-155.

Wycoff, J. R. (1982). Social support and self-esteem of cancer patients: An exploratory study. Dissertation Abstracts International, 43 (09), 3122-A. (University Microfilms No. 83-02322)

Yarbro, C. H. (1981). Special problems of communication: Nurse to patient, family, staff and physicians. Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, 75-81, Washington, D.C.

Young-Brockopp, D. (1982). Cancer patients' perceptions of five psychosocial needs. <u>Oncology Nursing Forum</u>, <u>9</u> (4), 31-35.

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