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Social Support and Cancer: Adult Patients' Desire for Support from Family, Friends, and Health Professionals[1]

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*Examined cancer patients' desire for social support from family, friends, and health professionals upon whom they most depended for support. Before a single interaction with each of these sources, nonhospitalized adult cancer patients (*N *= 64) completed a questionnaire indicating their desire for support from the source on 11 functional components. Results indicated that emotional and instrumental functions of support were distinct and required separate examination. Distinctiveness of primary sources was manifest by patients' overall preference for tangible aid from family, modeling from friends who had cancer, and open communication and clarification from health professionals. Family and friends were equally preferred sources for dealing with affective reactions to the stressfulness of cancer. All three sources were similarly desired for self-esteem enhancement and for relief from decision-making and problem-solving responsibilities. Finally, patients' perceived prognosis but not the objective severity of their illness was associated with a heightened desire for support, especially for instrumental support functions.*

Cancer is a widespread disease in our society: Approximately one in three Americans will be diagnosed with cancer at some point in their adult life-span,

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and three of every four households will have a member who is coping with cancer (American Cancer Society, 1987). Cancer patients may experience emotional distress, physical symptomatology, disruption in marital and/or sexual relationships, diminished level of activity, and considerable fears regarding disease progression and death (Meyerowitz, Heinrich, & Schag, 1983). Even after years of remission, survivors may exhibit chronic feelings of vulnerability (Burish, Meyerowitz, Carey, & Morrow, 1987; Dobkin & Morrow, 1985/1986; Schmale et al., 1983), and the persisting stressfulness of cancer may require long-term coping efforts on the part of most patients (Mages & Mendelsohn, 1979; Maher, 1982).

The stressfulness of living with cancer significantly impacts social support processes and outcomes for patients (DiMatteo & Hays, 1981; Dunkel-Schetter & Wortman, 1982; Peters-Golden, 1982; Taylor, Lichtman, & Wood, 1984). Although several studies suggest a positive association between social support and adaptive coping in cancer patients (Funch & Marshall, 1983; Mages et al., 1981; Smith, Redman, Burns, & Sagert, 1985; Vachon, 1984; Weisman & Worden, 1977), it has also been observed that cancer patients may experience problems in obtaining adequate or appropriate support (see Dunkel-Schetter & Wortman, 1982; Wortman & Dunkel-Schetter, 1979, for reviews). This evidence, however, is largely derived from patients' generalized retrospective assessments of support received and their satisfaction with it. Studies have not investigated support processes in patients' actual interactions with their primary sources of support.

To examine social support processes, it is important to distinguish between patients' desire for support and the support they receive. However, desired support has not been separately examined in prior research on social support and cancer. The study of desired support is especially valuable because patients appear to be misunderstood regarding the support they desire from primary sources of support (Peters-Golden, 1982; Wortman & Dunkel-Schetter, 1979). Such misunderstanding may reflect significant discrepancies between patients' desire for and receipt of support. Finally, because social support processes may differ depending on the person providing support (LaRocco, House, & French, 1980), there is a need to investigate patients' desire for support from different primary sources.

The present study uses both functional and structural perspectives on social support to examine adult cancer patients' desire for support. Functional perspectives center on the support functions that network members may serve (Cohen & Syme, 1985). Structural perspectives focus on the nature of support networks (e.g., size, density, strength of ties) and are explored here in a limited fashion by comparing distinct network members. Thus, in this study, patients' desire for several functional components of social support is assessed before their interactions with the family member, friend, and health professional upon whom they most depend. The purpose is to determine what support functions patients desire from each of these sources (e.g., Cohen & McKay, 1984; Eckenrode & Gore, 1981; Lieberman, 1986; Thoits, 1986; Wortman & Dunkel-Schetter, 1987).

In examining support functions, it is useful to conceptualize social support as a form of coping assistance (Thoits, 1986; Wilcox & Vernberg, 1985). Patients' desire for certain functions of support may reflect their desire for comparable forms of coping assistance. Coping theorists have identified three major ways of coping: emotion-focused, problem-focused (Lazarus & Folkman, 1984), and perception-focused coping (Pearlin & Schooler, 1978). Similarly, primary sources of support have been identified as typically fulfilling a recipient's need for emotional support, instrumental aid, and appraisal support (Cohen & McKay, 1984). Emotional support contributes to meeting one's socioemotional needs; instrumental support provides protection and relief from practical and problem-solving demands thereby enabling fulfillment of ordinary role responsibilities (House, 1981); and appraisal support, sometimes called cognitive information, contributes to one's understanding and self-perceptions (Cohen & McKay, 1984; House & Kahn, 1985). These functions of social support are thought to be similar to various ways of coping. Indeed, Thoits's (1986) integrative model of social support and coping suggests that emotional support and emotion-focused coping ameliorate patients' negative reactions to the cancer experience; instrumental support and problem-focused coping are both directed at changing or managing stressors in the cancer experience; and appraisal support and perception-focused coping attempt to alter meaningful aspects of cancer stressors.

In the present study, emotional, instrumental, and appraisal functions of support (Cohen & McKay, 1984) are assessed through 11 components of desired support. These components were identified from the social support literature (Cohen, Mermelstein, Karmarck, & Hoberman, 1985; Gottlieb, 1978; House & Kahn, 1985; Kahn & Antonucci, 1980; Schaefer, Coyne, & Lazarus, 1981) as well as studies of patients' reactions to cancer, perceived needs for support, and satisfaction with support provided (Dunkel-Schetter & Wortman, 1982; Mages & Mendelsohn, 1979; Taylor *et al.*, 1984; Vachon, 1984). It has been observed that cancer patients have a potentially greater than normal desire for most, if not all, of these components of support.

Emotional support is the most central function in the concept of social support (Sarason, Shearin, Pierce, & Sarason, 1987) and is reflected in several specific components: reassurance, esteem, intimacy, ventilation, and open communication (Gottlieb, 1978; House & Kahn, 1985). Cancer patients may desire *reassurance* in the face of uncertainties associated with the disease and doubts about the normalcy of their reactions (Wortman & Dunkel-Schetter, 1979). Patients may desire *esteem support* to compensate for threats to self-image in serious illness and the stigma associated with having cancer (Mages & Mendelsohn, 1979; Peters-Golden, 1982; Taylor, 1983). Fears of abandonment and avoidance by loved ones may heighten patients' desire for *intimacy* Wortman & Dunkel-Schetter, 1979). Further, as a way of dealing with negative affect engendered by cancer, patients may wish to *ventilate* their emotions without fear of hurting others, being judged, or being told what to do (Dunkel-Schetter & Wortman, 1982; Mages & Mendelsohn, 1979). Finally, patients may perceive a heightened need for *open communication* to deal with feelings of confusion and insecurity about the legitimacy of their concerns (Friedenbergs *et al.,* 1981/1982).

Instrumental support encompasses not only tangible aid (e.g., House & Kahn, 1985; Stokes & Wilson, 1984) but also other problem-solving interventions that may modify the environment and provide relief to patients (Gottlieb, 1983; Lin, 1986). Thus, in this study, components of instrumental support include tangible aid, advocacy, directive guidance, and social diversion. Gottlieb (1983) suggested that such components serve the same function: to "shore-up rational problem-solving activities and supplement the fund of psychosocial assets available in the environment" (p. 281). Patients may desire *tangible aid* as a way of getting relief from ordinary role responsibilities and as assistance in meeting personal care and everyday material needs (Funch & Mettlin, 1982; Schaefer *et al.,* 1981; Silverfarb, Maurer, & Crouthamel, 1981). In terms of *advocacy,* patients may want family, friends, and/or health professionals to intervene and protect them from external sources of stress (Maher, 1982; Vachon, 1984). Patients may also desire *directive guidance* from sources to assist with decision-making responsibilities, monitoring of treatments, and making referrals for additional help. Finally, they may seek *social diversion* as a way of taking their attention away from the high threat and low controllability of their illness (Meyerowitz, 1980; Wills, 1985).

Appraisal support, a third function examined in this research, is thought to contribute primarily to one's understanding and self-perceptions. Whereas some researchers conceptualize appraisal as an independent function (e.g., Cohen & McKay, 1984; House & Kahn, 1985), others suggest that it may not be distinct from emotional and instrumental support (Lin, 1986). In this study, appraisal support is represented by two components: clarification and modeling (e.g., Cohen & McKay, 1984; House & Kahn, 1985; Stokes & Wilson, 1984). Patients' desire for *clarification* about the normalcy of their symptoms and worrisome conditions (Dunkel-Schetter & Wortman, 1982; Mages & Mendelsohn, 1979) may result from the ambiguity and uncertainty of the course of cancer and unpredictability of reactions to treatment (Wortman & Dunkel-Schetter, 1979). Patients' desire for *modeling* support may be heightened by the stressfulness of cancer and their lack of relevant coping experiences (Adams, 1979; Dunkel-Schetter & Wortman, 1982; Friedenbergs *et al.,* 1981/1982; Wills, 1985).

For patients with serious illness, the three most important sources of support have consistently been identified as family, friends, and health professionals (DiMatteo & Hays, 1981; Revenson, Wollman, & Felton, 1983; Wortman & Conway, 1985). There is a need to compare patients' desire for support from these primary sources due to differing norms governing these relationships (LaRocco *et al.*, 1980). For example, communal relationships with family and friends tend to involve broad concern about one another's welfare, whereas exchange relationships with health professionals tend to be more limited as to a specific area of expectation and exchange (Clark, Mills, & Powell, 1986). Nevertheless, health professionals may be as important to patients as family or friends in providing support (Bloom, 1982; DiMatteo & Hays, 1981). Family and friends also deserve comparative study (e.g., Antonucci, 1985; Procidano & Heller, 1983) because patients' relationships with these sources differ in the type and degree of reciprocity, and sociocultural and situational similarity (Antonucci, 1985; Rook, 1987; Thoits, 1986).

Finally, because this study focuses on cancer patients, an important question is whether the illness characteristics of patients are related to their desire for support. For example, is *objective severity* of illness associated with patients' desire for social support? If so, are associations similar or different regarding patients' desire for emotional, instrumental, and appraisal support from their three sources? Similar questions may be posed about relations between patients' *perceptions of prognosis* and their desire for support from family, friends, and health professionals.

In summary, this study has three major goals: (a) to determine whether the 11 components of support define three independent dimensions of emotional, instrumental, and appraisal support functions as suggested by theoretical classification schemes and previous research, (b) to identify differences and similarities on these components in adult cancer patients' desire for support from family members, friends, and health professionals, and (c) to identify differences and similarities in patients' desire for support as a function of their illness characteristics.

METHOD

Sample

Nonhospitalized adult cancer patients over the age of 18 were eligible for participation in this study. Patients were recruited through programs sponsored by the American Cancer Society (e.g., CanSurmount, Reach to Recovery, Circle of Caring); 110 patients were identified through these programs. An additional 28 patients were suggested by other patients in the initial contact process. All patients identified as potential participants received an introductory letter which contained a brief explanation of the project and an estimate of required time commitment. Each patient was contacted by telephone within 5 days following letter delivery, provided further explanation of the study, and asked if he or she was willing to participate. Patients who refused immediately ($n = 15$) were not asked further questions. For those who expressed some initial interest ($n = 123$), the phone conversation was continued to clarify steps involved in the research, to collect demographic information, and to obtain the names of the family member, friend, and health professional on whom patients most depended for support in relation to their cancer experience. Of the 123 initial volunteers, 70 actually entered the study. This rate of accrual (57%) is comparable to that achieved by other researchers in psychosocial oncology (McCorkle, Packard, & Landenburger, 1984). The rate of attrition for this study was quite low (9%); 64 of the 70 participants completed all aspects of the study.

Patients who participated in this research were given the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1981) to assess their psychosocial adjustment. Total scores on the POMS can range from −30 to +200 in which higher scores indicate greater mood disturbance. Due to recruitment procedures, it was expected that the sample in this study might be positively biased in their emotional adjustment. However, the total emotional disturbance scores on the POMS for patients completing the present study ($M = 18.4$, $SD = 31.5$) was comparable to that reported for adult cancer patients participating in other research in psychosocial oncology (see Casseleth, Lusk, Brown, & Cross, 1985, for review).

The final sample for this study included 50 women and 14 men ranging in age from 19 to 75 years (median age 45 years). All but two participants were white. Seventy percent were married, 15% were separated or divorced, 3% widowed, and 12% never married at diagnosis. Three patients had changed marital status since original diagnosis. Educational attainment ranged from eighth grade to PhD degree levels; the median level of education was 3 years of college. Forty-seven percent were employed in professional or business positions; 30% of the women were housewives. The religious composition of participants included Catholic (47%), Protestant (31%), Jewish (6%), and no religous affiliation (16%).

Patients' mean distance from diagnosis was 18 months. Fifty-nine percent had been diagnosed with breast cancer, 14% fluid cancers (i.e., Hodgkins, lymphoma, leukemia), 8% colorectal cancer, 5% each with testicular and head/neck cancer, 3% each with lung and cervical cancer, and there were single cases of bone and thyroid cancer. With one exception, patients had received one or more forms of treatment at diagnosis. However, two thirds were not receiving treatment at time of measurement. Of the 21 patients being treated, 17 patients were receiving chemotherapy, 2 radiation, and 2 were receiving multiple forms of treatment. Seven of these patients were being treated for a recurrence. On average, at time of measurement, patients felt that support from others regarding their cancer experience was somewhat to quite important.

Sources of Support

Participants were asked to identify the family member, friend, and health professional upon whom they most depended for support in relation to their cancer experience. With regard to family members, all married patients selected their spouse; the other patients were evenly split in their selection of adult children, siblings, and parents. The median length of family relationships was 25 years, whereas the median length of friendships was 8 years. Eighty-four percent of patients selected a friend of the same sex.

In the selection of health professionals, 84% of patients chose their oncologist or family physician, 8% their surgeon, and 8% the oncology nurse administering their chemotherapy. In 35% of cases, health professionals were the same sex as the patient. The median length of patient/health professional relationships was 2 years. Patients were least similar in age to their health professionals ($r = .26$) and most similar in age to their friends ($r = .75$). In addition, only 3% of health professionals and 6% of family members had cancer themselves, whereas 25% of friends had cancer. In general, patients were most similar to their friends on the above dimensions and least similar to their health professionals.

Measures

Patients received a packet a few weeks prior to scheduled appointments with their health professionals. The packet contained a letter of instruction and three sets of desired support questionnaires, each clearly marked for completion with the appropriate individual. Patients were instructed to complete a questionnaire before their next appointment with their health professional. In that same week, they were to select 2 additional days: one to complete a questionnaire before time spent with their family member and one to do the same before being with their friend. Prestamped and addressed envelopes were enclosed for the direct return of questionnaires to the researcher.

Cancer-Relevant Variables

Two cancer-relevant variables were analyzed in relation to desired support: severity of illness and perceived prognosis. Severity of illness was measured by four variables: recency of diagnosis (recent diagnoses were considered more severe), whether the cancer had metastasized, whether the patient was currently undergoing treatment, and whether there had been a recurrence. These variables have been consistently identified as influencing patients' psychosocial needs and adjustment outcomes (Burish & Lyles, 1983; Derogatis, Abeloff, & Melisaratos, 1979; Mages *et al.,* 1981; Weisman & Worden, 1977). Perceived prognosis was assessed by the question: "What do you feel your prognosis is now?" Responses were measured on a 7-point scale (1 = excellent, 7 = very poor).

Desired Support Questionnaire

Patients' desire for support was assessed by a questionnaire completed before their interactions with family, friends, and health professionals. Items in the questionnaire were modeled after those included in Gottlieb's (1978) classification scheme of informal helping behaviors. Items representative of emotional support components were taken from Gottlieb's category of emotionally sustaining behaviors, whereas items for appraisal and instrumental support were derived from his categories of problem-solving behaviors and environmental action. In total, 29 items were included to assess 11 components of support (see Table I). A few items were altered to emphasize the health focus in this study (e.g., "I need to be helped to understand that my symptoms are normal"). Patients rated their desire for support on a 5-point scale (1 = not at all, 5 = very much). Alpha reliability coefficients (averaged across sources) for components listed in Table I varied from .40 to .78. Lower reliabilities on some components reflect in part the small number of items included in them.

Table I. Desired Support Questionnaire: Components of Desired Social Support, Alpha Reliability Coefficients, and Items[a]

Reassurance (coefficient alpha = .78)

- I need to be reassured by expressions of confidence about me, as a person.
- I need to be reassured by expressions of confidence about my thoughts.
- I need to be reassured by expressions of confidence about my actions.

Esteem (coefficient alpha = .62)

- I need to be shown respect.
- I need to be understood for the severity of my problems or feelings.

Intimacy (coefficient alpha = .53)

- I need to be shown warmth and closeness.
- I need companionship.
- I need to be reassured about the confidentiality of shared information.

Table I. Continued

- Ventilation (coefficient alpha = .62)
  - I need to let off steam about specific problem details.
  - I need to be heard without being told what to do.
- Open communication (coefficient alpha = .40)
  - I need to express my concerns just the way I want to.
  - I need to think out loud how to ask my doctors/nurses questions about things which are unclear or bothersome.
- Clarification (coefficient alpha = .63)
  - I need to be helped to understand that my symptoms are normal.
  - I need to be helped to understand more about a worrisome condition.
- Modeling (coeffient alpha = .77)
  - I need to observe his/her way of emotionally coping with a situation like mine.
  - I need to observe his/her way of solving a problem like mine.
  - I need to hear oral testimony of his/her experience in a similar situation.
- Advocacy (coefficient alpha = .64)
  - I need him/her to intervene and/or discuss my concerns with a family member or friend.
  - I need him/her to intervene and/or discuss my concerns with a medical person.
  - I need him/her to intervene and/or discuss my concerns with someone at work.
  - I need to be protected from a source of stress.
- Directive guidance (coefficient alpha = .65)
  - I need to be checked on and reminded to carry out a problem solving directive (e.g., taking medications).
  - I need to be encouraged to try new ways of coping.
  - I need to be referred to other helping resources.
- Tangible aid (coefficient alpha = .51)
  - I need to be given material aid (e.g., food, clothing, money).
  - I need to be given direct service (e.g., transportation, shopping).
  - I need him/her to handle or clear up some money matters (e.g., health insurance).
- Social diversion (coefficient alpha = .52)
  - I need to have my attention diverted by an activity unrelated to the problem.
  - I need to be invited to meet other companions.

[a] Alpha reliability coefficients are values averaged across sources of support.

Preliminary Analyses

Several preliminary analyses were performed to determine whether patients' desired support from the three sources was differentially affected by patients' state on the days they completed the questionnaires, the order in which questionnaires were completed, and select demographic characteristics.

At the time patients completed desired support questionnaires, they were asked about their health and busyness on that day. *Perceived health* was assessed by the item: "Please circle the number which best describes your health today." Responses were scored on a 7-point scale (1 = very poor, 7 = excellent). *Busyness* was assessed by the item: "Please circle the number which best describes how busy you are today." Responses were scored on a 7-point scale (1 = not busy at all, 7 = extremely busy). A potential bias in reports of desired support could occur if there were systematic differences in patients' perceived health and busyness prior to interactions with their three sources. To check for such differences, repeated measures analyses of variance were conducted comparing the three sources of support with health and busyness as separate dependent variables. Results showed no significant differences for either of these variables. Thus, patients on average were feeling similarly healthy and busy prior to interactions with their family members, friends, and health professionals.

In addition, patients thought their interactions with all three sources were similarly and highly typical. Following each interaction, patients indicated how typical their time had been with their given source on a 7-point scale (1 = not at all typical, 7 = very typical). Repeated measures ANOVAs showed no significant differences in the reported typicalness of interactions with family ($M = 6.27$), friends ($M = 6.36$), and health professionals ($M = 6.45$).

Another potential bias in reports of desired support could result from the order in which patients completed questionnaires. Because the sequence of interactions with family members, friends, and health professionals was at patients' discretion, one-factor analyses of variance were conducted to determine whether the order of interactions significantly influenced subjects' desired support. Separate analyses were conducted on each measure of desired support. Only one test reached significance. This would be expected to occur by chance given the large number of tests conducted. Thus, it does not appear that the order of interactions had a significant effect on patients' reports of desired support.

Finally, possible influences of patients' demographic characteristics on their reports of desired support were explored. Social support literature (e.g., Antonucci, 1985) suggested that gender and educational attainment may influence social support findings. Women and men, or college graduates compared with patients having less formal education, may differ in the type or amount of support desired and/or in their preference of source. Multivariate analyses of variance were conducted to examine whether mean levels of desired support on the 11 components differed by sex (female, $n = 50$ vs.

male, $n = 14$) or educational attainment (i.e., college graduates, $n = 28$ vs. nongraduates, $n = 36$). Results revealed no significant main effects of sex or education nor significant interaction effects of these variables with source in this sample. Finally, although there were a large number of breast cancer patients in this study, the types of support that might bias results due to this subgroup (e.g., sexual intimacy and validation) were not assessed in this study.

RESULTS

The Structure of Desired Support Functions

Factor analyses were performed on the 11 components to examine their structure in relation to broader functions of emotional, instrumental, and appraisal support identified in previous literature. Due to the large number of questionnaire items ($n = 29$) compared to the number of participants ($N = 64$), analyses were conducted with scores on the 11 components (see Table I) rather than on individual items. Principal axes factor analyses with oblique rotation were conducted using scores separately for each source. An oblique method of rotation was selected so as not to force statistical independence of desired support functions. It was expected that patients would desire multiple dimensions of support rather than any single one to the exclusion of others.

Several criteria were considered in determining the number of factors to extract including an examination of eigenvalues, Scree plots, and interpretability of factors. Analyses of data on both friends and health professionals revealed only two factors with eigenvalues greater than 1. These values were 4.99 and 1.59 for friends and 5.50 and 1.32 for health professionals. In the analysis of data on family, three factors had eigenvalues greater than 1 (i.e., 4.90, 1.72, and 1.09). However, the Scree plots (see Gorsuch, 1974) indicated a break in eigenvalues after two factors in the analysis of family as well as friend and health professional data. Moreover, the third factor extracted in an analysis of the family data did not correspond to any of the three major support functions expected. Rather, this factor had high loadings on three components—ventilation, clarification, directive guidance—each representing a different major support function. Thus, based on the multiple criteria considered, a two-factor solution was adopted in analyses for each source. Factor loadings and the interfactor correlation for the separate analyses by source are reported in Table II.

Coefficients of congruence (Gorsuch, 1974) were computed to assess the similarity of factor-loading patterns across sources. The coefficients com-

Table II. Two-Factor Solutions for Desired Support Separately by Primary Sources

Component of desired support	Factor loadings					
	Family		Friend		Health professional	
	1	2	1	2	1	2
Reassurance	.82	.07	.96	−.17	1.00	−.21
Esteem	.91	−.16	.59	−.06	.90	−.09
Intimacy	.77	−.04	.65	−.02	.67	.02
Ventilation	.71	−.10	.69	.00	.68	.10
Open communication	,53	,21	,57	.17	.62	.23
Clarification	.54	.37	.44	.42	.53	.26
Modeling	.31	.54	.44	.42	.45	.45
Advocacy	−.12	.85	−.04	.89	.05	.74
Directive guidance	.27	.55	.17	.76	.17	.72
Tangible aid	−.16	.58	−.22	.62	−.15	.41
Social diversion	.30	.32	.34	.36	.20	.38
	Factor correlations					
Factor 1	1.00		1.00		1.00	
Factor 2	.41	1.00	.50	1.00	.56	1.00

paring loadings on Factor 1 for each source showed high congruence: Family–Friend = .97, Family–Health Professional = .98, and Friend–Health Professional = .98. Likewise, the coefficients comparing loadings on Factor 2 for each source demonstrated a high level of congruence: Family–Friend = .97, Family–Health Professional = .94, and Friend–Health Professional = .98. By contrast, coefficients comparing the patterns of loadings on Factor 1 from one source with loadings on Factor 2 from a different source (e.g., Family Factor 1 vs. Friend Factor 2) were uniformly low (coefficients ranged from .12 to .19) indicating negligible congruence. Overall, these findings indicate that the factor-loading patterns reported in Table II show a high degree of similarity across the three sources of support.

Substantively, the two factors in each of these analyses appear to represent a contrast between emotional (Factor 1) and instrumental (Factor 2) support functions. Factor 1 had high loadings for all components of emotional support (i.e., reassurance, esteem, intimacy, ventilation, open communication). Factor 2 had high loadings for three of the four components of instrumental support (i.e., advocacy, directive guidance, tangible aid). However, diversion support showed low and roughly similar loadings across the two factors. Additionally, the two components of appraisal support, clarification and modeling, had somewhat similar loadings on Factors 1 and 2. Factor correlations indicate that the support functions represented by the two factors were not independent statistically. The moderate positive correlations between factors was an expected finding, suggesting that some patients were more likely than others to desire both emotional and instrumental support from sources.

Desired Support from Primary Sources

Analyses were conducted to examine whether mean levels of desired support differed for the three sources. Multivariate repeated measures analyses of variance were first performed with source of support (family vs. friend vs. health professional) as a within-subject factor and patients' ratings of desired support as the dependent variables. These analyses were conducted separately for components loading on each of the two factors and for components with split loading across the two factors. For these analyses, the first five components listed in Table III were categorized as emotional support, the next three components as instrumental support, and the last three components were categorized as emotional/instrumental support. Significant multivariate effects associated with source occurred for emotional support components, multivariate $F(10, 244) = 7.63, p < .001$, for instrumental support components, multivariate $F(6, 248) = 3.69, p < .01$, and for emotional/instrumental components, multivariate $F(6, 248) = 9.44, p < .001$. To clarify the multivariate effects, repeated measures analyses of variance were performed on each of the 11 components. When significant main effects of source occurred in these analyses, multiple comparisons of means for the three sources of support were performed using a Bonferroni t test ($p < .05$; see O'Brian & Kaiser, 1985). Mean ratings on the components of support for each source are reported in Table III.

Results for components of emotional support showed both similarities and differences among sources of support. Patients reported similar levels of desire for reassurance and esteem from all three sources of support. Source differences did occur for the other components: intimacy, $F(2, 126) = 11.48, p < .001$; ventilation, $F(2, 126) = 4.84, p < .01$; and open communication, $F(2, 126) = 12.26, p < .001$. Multiple comparisons of means revealed two patterns. Patients expressed a greater desire for intimacy and opportunities to ventilate with family and friends than with health professionals. By contrast, patients had a significantly greater desire for open communication with their health professionals than with family members or friends.

Results for components of instrumental support also showed similarities and differences among the three sources. Patients desired similar levels of advocacy and directive guidance from family members, friends, and health professionals. However, they showed a differential preference for tangible aid, $F(2, 126) = 9.23, p < .001$, from family members than from either friends or health professionals. Results for components associated with both

Table III. Mean Ratings of Components of Desired Support by Primary Sources[a]

Component of desired support	Source of support		
	Family	Friend	Health professional
Factor 1 (emotional support)			
Reassurance	2.95_a	2.84_a	2.71_a
Esteem	3.32_a	3.16_a	3.11_a
Intimacy	3.32_a	3.25_a	2.84_b
Ventilation	3.12_a	3.16_a	2.72_b
Open communication	2.81_a	2.77_a	3.33_b
Factor 2 (instrumental support)			
Advocacy	1.53_a	1.35_a	1.52_a
Directive guidance	1.74_a	1.75_a	1.77_a
Tangible aid	1.50_a	1.13_b	1.12_b
Factors 1 and 2 (emotional/instrumental support)			
Clarification	2.27_a	2.34_a	3.06_b
Modeling	2.02_a	2.31_a	2.08_a
Social diversion	2.00_a	$1.88_{a,b}$	1.63_b

[a] Means with different subscripts differ significantly at $p < .05$. Ratings were made on a 5-point scale (1 = not at all, 5 = very much).

emotional and instrumental support showed similarities and differences among the three sources as well. For clarification, an effect of source, $F(2, 126) = 17.76, p < .001$, indicated that patients wanted greater clarification from their health professionals than from either family members or friends. The effect of source for social diversion, $F(2, 126) = 5.03, p < .01$, reflected patients' greater desire for social diversion from family members than from other sources. For modeling, an effect of source, $F(2, 126) = 3.27, p < .05$, indicated the tendency for patients to desire more modeling support from friends. However, multiple comparisons for modeling did not reach significance.

Because 25% of participants in this study identified a fellow cancer patient as the friend upon whom they most depended for support, analyses were also conducted to determine whether patients in this subgroup differed in their desire for support not only from friends but from family and health professionals as well. Multivariate analyses of variance were performed separately on emotional, instrumental, emotional/instrumental support components with type of friend (cancer vs. noncancer) as a between-subject factor and source of support as a within-subject factor. A multivariate effect for the interaction between type of friend and source was significant only for emotional/instrumental support components, multivariate $F(6, 244) = 2.18, p < .05$, and was accounted for by a significant interaction effect for

Table IV. Correlations Among Cancer-Relevant Variables

Variable	1	2	3	4	5
1. Recency of diagnosis	–				
2. Active treatment	.37[b]	–			
3. Metastases	.02	.34[b]	–		
4. Recurrence	.02	.18	.04	–	
5. Perceived prognosis[a]	.05	.19	.06	.32[b]	–

[a] Perceived prognosis was measured on a 7-point scale (1 = excellent, 7 = very poor).

[b] $p < .01$.

modeling support, $F(2, 124) = 6.50, p < .01$. Modeling support was desired more from friends who had cancer ($M = 2.88$) than from friends who did not have cancer ($M = 2.13$). However, these subgroups of patients who had cancer versus noncancer friendships did not differ in their desire for modeling from family (*M*s = 1.88 and 2.07, respectively) or from health professionals (*M*s = 2.18 and 2.05, respectively).

Cancer-Related Correlates of Desired Support

Analyses were performed to examine relationships first among the cancer-relevant variables, then between these variables and patients' desire for support. As illustrated in Table IV, correlations among severity of illness variables indicated that patients who were under treatment while in this study tended to have been diagnosed more recently or to have experienced a recurrence. Perceived prognosis showed a significant relation to only one of the four severity of illness variables such that those who reported poorer prognosis were more likely to have experienced a recurrence. Overall, these correlational findings suggest that each of the severity of illness variables and perceived prognosis may tap different facets of patients' illness experience.

In analyses examining the relation between cancer-relevant variables and desired support, separate scores were estimated for each factor of desired social support that had emerged in the factor analyses by source. Because some components had similar loadings on the two factors, differential weights (i.e., factor score coefficients) rather than unit weights were used in estimating the factor scores. Alpha reliability coefficients for factor scores were acceptable. The reliability coefficients were comparable across sources, but they were somewhat higher for scores on emotional support (Family = .87; Friend = .86; Health Professional = .90) than instrumental support (Family = .70; Friend = .77; Health Professional = .68). Correlations between cancer-relevant variables and scores of desired emotional and instrumental support are listed in Table V.

Severity of illness was not significantly correlated with desired support from any of the three sources. With only one exception, none of the four separate indicators of severity was significantly related to patients' desire for support. Further, multiple correlations which represent the joint relationship of severity indicators to desired support were insignificant. By contrast, *perceived prognosis* was significantly correlated with patients' desire for emotional support from health professionals and with their desire for instrumental support from all three sources.

To examine further the significant relationships shown in Table V, correlations were computed between patients' perceived prognosis and their desire for support on specific components. In terms of emotional support from health professionals, patients with a poorer perceived prognosis desired significantly more esteem ($r = .28, p < .05$) and intimacy ($r = .25, p < .05$) from their health professionals. Table VI shows the correlations between perceived prognosis and components of desired support for instrumental and emotional/instrumental functions. These correlations are reported separately for each primary source. For instrumental support, correlations varied somewhat by the source and component examined. Patients who perceived their prognosis to be poorer expressed a greater desire for advocacy from family and health professionals; they desired more directive guidance from all three sources; and they wanted more tangible aid from friends. With regard to emotional/instrumental components, patients reported a greater desire for modeling from their health professionals and for more clarification and social diversion from both friends and health professionals.

DISCUSSION

Current knowledge about social support remains limited in part because theory and research on social support tends to focus on either a structural or functional perspective. These approaches in isolation are quite limited in the questions they can address. By contrast, the present study contributes important information about the similarities and differences among primary providers of support for different functions of social support. Further, the focus of this study on desired support provides much needed insight into the perceptions that patients bring to primary relationships regarding their preferences for support. Finally, results of this study underscore the important role that subjective evaluations of one's stressful condition versus objective conditions may play in a person's desire for support from primary sources.

Table V. Correlations Between Cancer-Relevant Variables and Desire for Support from Primary Sources

Cancer-relevant variables	Emotional support			Instrumental support		
	Family	Friend	Health professional	Family	Friend	Health professional
Severity of illness[a]	.22	.10	.17	.28	.14	.33
Recency of diagnosis	−.14	−.08	−.07	.09	−.01	−.04
Metastases	−.07	−.03	−.15	.22	−.12	.26^{c}
Active treatment	.00	.06	.07	.06	.00	.08
Recurrence	−.10	−.02	.02	.13	.04	.18
Perceived prognosis[b]	.12	.04	.28^{c}	.28^{c}	.32^{d}	.43^{e}

[a] For severity of illness, multiple correlations which represent the joint relationship of the four indicators of severity of illness to desired support, are listed.

[b] Perceived prognosis was measured on a 7-point scale (1 = excellent, 7 = very poor).

[c] $p < .05$.

[d] $p < .01$.

[e] $p < .001$.

Table VI. Correlations Between Patients' Perceived Prognosis and Desired Support from Primary Sources[a]

Component of support	Family	Friend	Health professional
Instrumental support			
Advocacy	.30[c]	.20	.40[d]
Directive guidance	.29[c]	.31[c]	.36[c]
Tangible aid	.14	.38[d]	.09
Emotional/instrumental support			
Clarification	.21	.33[c]	.32[c]
Modeling	.06	.13	.34[c]
Social diversion	.18	.35[c]	.27[b]

[a] Perceived prognosis was measured on a 7-point scale (1 = excellent, 7 = very poor).
[b] $p < .05$.
[c] $p < .01$.
[d] $p < .001$.

The Structure of Desired Support Functions Across Sources

The factor analytic structure of desired support functions identified in this research contributes to current conceptualizations of social support. The two-factor solutions appear to reflect a distinction between emotional versus instrumental functions of support. One factor was loaded by components of emotional support (i.e., reassurance, esteem, intimacy, ventilation, open communication), and the second factor was loaded by components of instrumental support (i.e., advocacy, directive guidance, tangible aid). The appraisal support function was not distinct from these two factors.

For components of appraisal support (i.e., clarification and modeling), the pattern of split loadings across emotional and instrumental support functions may be interpreted taking into account both conceptual and methodological issues. Conceptually, Lin (1986) pointed to the difficulty of classifying the appraisal function, which involves feedback about both one's identity and performance, as independent from emotional and instrumental support. Whereas feedback about one's identity may serve an emotional support function, feedback about performance may serve an instrumental function. Thus, clarification and modeling support, which logically provide such feedback, may be more accurately conceptualized as involving both emotional and instrumental functions. In the case of modeling, the split across emotional and instrumental factors may also be due to the inclusion of separate items that emphasized emotion-focused versus problem-focused modeling (i.e., "I need to observe his/her way of (1) emotionally coping, and (2) solving a problem like mine").

Social diversion, a component originally identified with the instrumental function, showed split loadings across the two factors as well. Social diversion may indeed serve both functions. Although it involves an instrumental approach to support, by actively diverting one's attention away from the problem it assists patients in dealing with their emotional reactions. In concert, factor analytic findings of split loadings for social diversion, clarification, and modeling suggest the need for more careful and extensive assessment of these components in future research.

Although the two factors identified in the present research may reflect a distinction between emotional and instrumental support functions, other interpretations of these factors are also possible. The two-factor solution could also be viewed as reflecting a difference between social support as assistance in the achievement of emotion- versus problem-focused coping. Alternatively, from the perspective of the support provider, the two factors may reflect a contrast between an enabling (Factor 1) versus direct action/intervention (Factor 2) approach to the provision of support.

Whichever interpretive stance to the two factors is adopted, the results demonstrate two key points: (a) social support is best considered a multidimensional concept including at a minimum the differentiation between emotional and instrumental support functions, and (b) the factor analytic structure of social support appears to be highly similar across three quite distinct sources of support, at least regarding cancer patients' desire for support from them. From a methodological perspective, these findings are important because the existence of a similar structure across sources is necessary before meaningful comparisons can be made in levels of desired support from different sources (see, e.g., Nesselroade, 1977). Similarity in the factor composition of the components of support across sources suggests that the various components of support assessed in this research are indicators of similar constructs across sources.

Patients' Desire for Support from Primary Sources

Results comparing patients' desire for support from family, friends, and health professionals clearly demonstrates the need for joint consideration of functions and sources of social support. The distinctiveness of primary network members is manifested by patients' overall preference for tangible aid from family members, for modeling from friends who had cancer, and for open communication and clarification from their health professionals.

Patients' greater desire for tangible aid from family may be due in part to shared living arrangements, life history, and norms of familial obligation. In the majority of cases, patients were living with the family member upon whom they most depended for support. Because of their immediate proximity and long-term familiarity (M = 25 years), family members may be most involved in and aware of patients' everyday living requirements. In addition, family members are most likely to be guided by a strict code of expectations about duty in meeting one another's basic needs (Antonucci, 1985). Thus, patients' greater desire for tangible aid from family may reflect an expectation that family members will meet these needs out of a sense of familial obligation.

Patients' heightened desire for modeling from friends who have cancer further substantiates reports in self-help and cancer literature suggesting that fellow cancer patients may serve as important models. By observing coping in others who are similar to themselves, patients may be able to reappraise their own personal resources and the range of alternative ways of coping (Adams, 1979; Gottlieb, 1983; Thoits, 1986). Because of the voluntary nature of friendships, patients are better able to select a friend on the basis of shared cancer experience. However, patients who desire modeling support need sufficient opportunities to meet and develop supportive relationships with fellow cancer patients.

Patients' greater desire for clarification and open communication from health professionals highlights the distinctive nature of patient–provider relationships. The greater desire for clarification was expected given the role of health professionals as "expert." The emphasis on health expertise in component items (e.g., "I need to be helped to understand that my symptoms are normal") may also account for the magnitude of this difference. Patients' greater perceived need for open communication with health professionals was not an expected finding. Anecdotal reports suggest that patients have a strong desire for open communication with all three sources, to freely express their concerns and communicate about things which are unclear or bothersome (Dunkel-Schetter & Wortman, 1982). Patients' greater desire for open communication with health professionals may have been prompted by difficulties in communicating with this source. In interactions with health professionals, a significant number of cancer patients report difficulty in expressing themselves and in understanding what is being said about their treatment or disease (Meyerowitz et al., 1983).

In contrast to these differences between sources, similarities among sources were found as well. Family and friends were viewed comparably by patients as potential providers of intimacy, opportunities to ventilate, and social diversion. In the security of communal relationships with family and friends, patients may feel freer to seek support for dealing with affective reactions to the stressfulness of cancer. Intimacy and ventilation, in particular, entail the sharing of personal vulnerabilities and are likely to be sought in trusted relationships where there is strong reciprocal concern (Rook, 1987; Thoits, 1986). Cancer patients are generally less willing to reveal such vulnerabilities to their health professionals (Hurney, Piasetky, Bagin, & Holland, 1987). Social diversion, which was also sought primarily from family and friends, may enable patients to control affective reactions by taking their minds off the threat of cancer (Thoits, 1986; Wilcox & Vernberg, 1985). Patients may have lesser expectations for social diversion from health professionals whose very focus is on cancer threats and patient vulnerabilities. In addition, 95% of patients in this study interacted with their health professionals in health-care settings, whereas 80% of patients interacted with family at home, and the majority met with friends in settings outside the home (e.g., restaurants, shopping centers). These latter settings typically afford greater opportunities for social diversion.

Patients' desire for reassurance, esteem, directive guidance, and advocacy support was comparable across family, friends, and health professionals. Their desire for a similar degree of reassurance and esteem from different sources may be due to the overriding importance of restoring self-esteem in coping with a life-threatening illness such as cancer (Taylor, 1983; Wills, 1985). Expressions of confidence and respect from any and all primary sources are likely to enhance patients' self-esteem. In addition, because the impact of cancer is felt in multiple areas of patients' lives, family, friends, and health professionals may play equally important protective roles on their behalf. Directive guidance may provide relief to patients in the face of threatening information and decision-making demands that impinge on cancer care, home life, and social relationships. Similarly, advocacy support may provide relief from a wide variety of external stressors. Such relief may be needed most in health settings where patients must negotiate their care with many different health providers (e.g., surgeons, oncologists, oncology nurses, technicians) and systems (e.g., health insurance).

Comparisons of patients' desire for different types of support from different primary sources underscore the importance of distinguishing between network members in future investigations of social support functions. Results suggest that in studies of certain components, one particular network member should not be oeverlooked (i.e., family for tangible aid, friends who have cancer for modeling, and health professionals for open communication and clarification). Furthermore, in studies of support that deal with affective reactions to stressful events, informal or communal relationships should be examined. Finally, it may be wise to assess the role of both formal and informal sources in investigations of support which enhances self-esteem or provides relief from the decision-making and problem-solving demands posed by stressful life events.

Cancer-Relevant Variables and Patterns of Desired Support

In this study, perceived prognosis was associated with patients' desire for support but objective severity of illness was not. Other research in psychosocial oncology has also found larger relationships between perceived severity and psychosocial variables in patients (e.g., Marks, Richardson, Graham, & Levine, 1986). Moreover, other studies (e.g., Leventhal, Nerenz, & Steele, 1984; Pennebaker, 1984) have reported only modest positive correlations between objective and subjective measures of severity. A number of cognitive and behavioral variables have been identified as the basis for the discrepancy between objective and subjective measures. Objective severity is determined by such factors as recency of diagnosis, metastases, treatments, and recurrence (Burish & Lyles, 1983; Derogatis et al., 1979; Mages et al., 1981). By contrast, perceived severity is guided more by patients' level of pain, discomfort, activity restrictions, and dispositional tendencies (Marks et al., 1986).

Relationships between perceived prognosis and patients' desire for support differed by function and source of support. Focusing on function, patients' poorer perceived prognosis was significantly associated with a heightened desire for instrumental support. This finding is consistent with previous research on health and social support (e.g., Dunkel-Schetter, Folkman, & Lazarus, 1987; Schaefer et al., 1981; Silverfarb et al., 1981). More specifically, analyses revealed that perceived prognosis correlated with some components of instrumental support and not others. Overall, in terms of function, results suggest that patients with poorer perceived prognoses may desire greater protection and relief from decision-making and problem-solving responsibilities (i.e., heightened desire for advocacy, directive guidance, and social diversion). Such patients may feel too vulnerable or threatened to protect themselves or to tackle decisions required for managing their illness and everyday life.

Patients who felt most vulnerable in their illness also looked increasingly beyond typical sources – and particularly to health professionals – for support. For example, patients who perceived a poorer prognosis had a heightened desire for both emotional and instrumental support from health professionals. Their interest extended beyond functions typically sought (i.e., clarification and directive guidance) from this source. These patients wanted greater intimacy, modeling, and social diversion from health profesionals as well. This tendency to desire greater support from atypical sources was also seen in results for friends (e.g., a heightened desire for tangible aid and social diversion from friends but not from family). It may be that typical sources and especially family members burn out in the process of providing such support to these patients.

These results highlight the importance of distinguishing between objective and subjective assessments of stressful life events in investigations of social support. Subjective evaluations of the seriousness of one's condition appear to play an important role in a person's desire for support. To better understand this finding, third-variable explanations (e.g., the association between depression and perceived prognosis) require additional study. Moreover, the question remains whether the relations between perceived prognosis and desired support found in this study for cancer patients would be similar for individuals experiencing other health-related stressful life events.

In conclusion, this study examined desired support as a logical point to initiate the examination of how cancer patients may seek support to assist their coping efforts. The findings reveal both differences and similarities in the degree and kind of support that cancer patients desire from primary network members. Although these findings provide a foundation, the role of social support in the coping process merits additional attention. In particular, the present study does not indicate how patients mobilize support (cf. Eckenrode, 1983) or whether network members provide the support that patients desire. Thus, it would be helpful if future research investigated how individuals' desire for support influences their mobilization and receipt of support from primary network members in the process of coping with stressful life events such as cancer.

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