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ABSTRACT

Self-assessment of health incorporates both objective and subjective elements into a general state with implications for health-related behavior. To examine the predictors of self-assessed health in an elderly, post-hospitalization population, 73 adults, 65 years of age or older, were asked to assess the status of the condition for which they were hospitalized, satisfaction with their progress, and overall health, just prior to hospital discharge and 2 months later. All patients were either hospitalized for heart disease or hip fractures or replacements, which required supportive care during recuperation. The primary caregivers were also interviewed 2 months after discharage. An analysis of the results showed that affect, socioeconomic status, and social support were predictive of self-assessed health. These elderly individuals assessed not only their ability to function, but the extent to which other services were necessary to them, the extent to which someone had to be involved as a caregiver and was committed and able, and the extent to which giving care strained or burdened that person. The extent to which services from all sources were planned, received, and considered sufficient by recipients was associated with their perceptions of their own health. The findings indicate that health is socially determined in part by the actions of others, and defined by one's perceptions of self and primary caregivers. (BL)

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Predictors of Self-Assessed Health Among Elderly Post Hospitalization

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ABSTRACT

Predictors of Self-Assessed Health Among Elderly Post Hospitalization

Self-assessed health is important as a domain for study because it incorporates both objective information and subjective perceptions into a general state or stance with implications for health-related behavior. Previous studies have found predictors or correlates of self-assessed health to include physical function, affect, and socio-economic variables. This study asked elderly respondents discharged two months previously from an acute hospital to assess their health in terms of the present status of the condition for which they were hospitalized, satisfaction with progress of this condition, and overall health apart from this condition. A composite measure of self-assessed health was derived from these questions. As in previous studies, affect and socioeconomic status were predictors. Unique to this study were the contributions of support system variables. The findings suggest that individuals do not assess their health as isolated individual units, but in relation to their support systems; and that further research on the contribution of support systems to self-assessed health is needed.

Key Words: Self-assessed health, support system, elderly

Predictors of Self-Assessed Health Among Elderly Post Hospitalization

Self-assessments of health by the elderly have begun to receive increasing attention by researchers. In part this is because of the association of self-assessed health with other measures of health which are more difficult to obtain, as for example physician assessments (c.f. Fillenbaum, 1979; Lawton et. al., 1967; Snow and Crapo, 1982). Self-assessed health has also been used as a measure of need for care; or as a predictor of utilization of health or social services (Wolinsky et. al., 1983). However, our interest here is in self-assessed health as its own domain, and in the predictors of this domain.

Viewing self-assessed health as its own domain is in itself not novel. In 1958 Suchman, Phillips and Streib (replicated later by Friedsam and Martin, 1963) suggested that "perceived health" could be distinguished analytically from other aspects of health. Our position, however, goes further. We feel that what makes self-assessed health and its predictors important for study is the incorporation in self-assessed health of both "objective" indicators of health and an introspective and subjective perspective, by individuals, through which information about health, symptoms and experienced function are filtered.

This is essentially the position of Mechanic (1979), who notes that "although questions on perceived health status, symptoms, chronic disease, and restricted activity are commonly asked (in health surveys), these usually reflect a complex pattern of illness perception and behavior that goes beyond the narrower conceptual definition of morbidity...one measure of illness typically used is respondents' perceptions of their health. Whereas physicians have been trained to identify discrete disease problems that they can manage in specific ways, patients tend to have a more global view. They react experientially to their overall sense of well-being and to the extent that their symptoms disrupt their ability to function or interfere with important life activities. In one analysis ...to ascertain predictors of subjective health status ...[we found that] psychological distress was significantly associated with subjective ill health in all data sets. The ordering of the relationship, of course, can be interpreted either way."

From this perspective, self-assessed health as a domain incorporates both the "objective" information the respondent may have about his health status, a global assessment of personal health, his mood or feelings about this global assessment, and expectations about the consequences of being in this state. Self-assessed health, and its predictors, are thus important because self-assessed health incorporates both objective and subjective elements into a general state or stance with consequences both for morbidity and future action (such as seeking services). It is therefore not surprising that self-assessed health has been found to be associated with self-image, morale, emotional well-being, and life satisfaction (Friedsam and Martin, 1963; Maddox and Douglass, 1973); concerns about health (Tissue, 1972); or even mortality (Muller, 1982; Mossey and Shapiro; 1982; Singer et. al., 1976).

Studies of correlates of self-assessed health have often found it to be associated with measures of physical function, and physical and psychological symptomatology (c.f. Deniston and Jette, 1980; Murray, Dunn and Tarnopolsky, 1982). Other factors as well, including socio-demographic factors such as age and sex and changes in interaction with one's social network, have also been found to be associated with self-assessed health [Maddox and Douglass, 1973; Murray, Dunn and Tarnopolsky, 1982; Markides and Martin, 1979; c.f. also the "Andersen" model as discussed in Mechanic (1979) and Wolinsky (1983)]. In summary, other studies have shown functional ability, emotional factors, socio-economic status and demographic variables to contribute to self-assessments of health.

In this present exploratory study, using multiple regression methods we examine predictors of self-assessed health in a sample of elderly two months after discharge from an acute care hospital. The goals of the analysis are to identify possible groups of significant predictors of self-rated health; assess the relative importance and predictive ability of variables within these groups; and to explore the implications of relationships among these variables and self-assessed health for future research.

The Sample

The Posthospital Support Study included a sample of 170 patients 65 years of age or older, consecutively admitted to, and then discharged from three San Francisco acute care hospitals during the course of one year. These patients had been hospitalized for arteriosclerotic heart disease or an operation following hip fracture or for replacement of a hip joint (hip arthroplasty). Both these conditions were chosen because they require a recuperative period after hospital, and because patients are not immediately capable of complete self-care and require some services or help from others for maintenance. Patients who were too confused to be interviewed were excluded from the sample; otherwise, patients who gave consent and whose physician gave consent for interview; were included in the potential sample. The sample pool included all hip patients at all three hospitals, all heart patients at one (the university hospital), and every other heart patient at the other two hospitals. Patients were interviewed in hospital as close as possible to discharge and approximately two months after discharge to the community. One hundred thirty-two patients had both sets of interviews. Eighty-five patients had primary caregivers from the informal system; that is, they were spouses, children, other relatives, or friends or neighbors. These caregivers were also interviewed two months after patient discharge to the community.

Self-assessed health was assessed by three questions from the posthospital questionnaire which asked the respondent to rate (1) his or her own progress (as not very well, slowly, about average, very well) in recovering from the heart condition or hip surgery in the two months since hospital discharge; (2) satisfaction with progress made (impatient, indifferent, satisfied), and (3) overall health aside from the heart/hip problem (poor, fair, good, excellent). A self-assessed health score was created by summing the responses to these three questions, with high scores indicating high self-assessed health. In all, 73 respondents received scores for self-assessed health; and the analysis is based on this subset of respondents.

Other Variables Measured

Physical functioning was assessed by combining responses from both the respondent and his or her primary caregiver into the Functional Dependency Index (Robinson and Gigy, 1983). Caregivers were asked, using the Katz ADL (Katz and Akpom, 1976), to assess the respondent's ability to perform five tasks of personal care: bathing, dressing, toileting, transfering (in and out of bed), and feeding. The rating for ability for self-maintenance at home was generated by asking respondents to rate (separately) how much assistance was required in six instrumental activities of everyday living: transportation, shopping, laundering, household maintenance, meal preparation, and management of business affairs (Functional Dependency Index, Subscale A; Robinson and Gigy, 1983). Responses to each of the eleven items was assigned a score ranging from 0 to 2. High overall scores indicate the respondent is more dependent or more frequently receives assistance in completing tasks of daily living. Though this scale seemingly assesses two different types of functioning, the comprehensive Functional Dependency Index actually is more reliable, as measured by Cronbach's Alpha, than the Katz ADL separately (.888 to .819); and only modestly less reliable than Subscale A alone (.888 to .892).

Social contact was assessed by asking respondents' for names, residence, and frequency of contact for all living siblings, children, other relatives, close friends and known neighbors. The social contact score is the percentage of this potential social support network seen face-to-face at least once every two weeks by respondents. Although data on interactions by telephone and correspondence also were gathered, the kind of direct instrumental support often required by the elderly necessitates reasonably frequent primary group contact (c.f. Rosow, 1967; Litwak, 1977).

There were two measures of services received posthospital: total services received from formal providers, (recognized service agency, landlord or building manager, or anyone paid for services rendered); and total services received from informal providers (members of the social support network, or anyone not paid for services rendered). Respondents' answers were coded into the two provider categories for the following questions, derived from OARS (Duke University, 1978): "During the past two months since you got out of the hospital, has anybody been helping you with nursing care, social work services, physical therapy, mental health care, transportation; accompanying you when you go out; being with you all the time to look after you; being with you part time to look after you; fixing things around your residence; doing grocery shopping, laundry, household chores (washing dishes, taking out the garbage, cleaning); preparing meals; managing your business affairs; regularly checking on you; helping you with dressing, bathing, toileting, moving around the house, transferring to and from the bed or a chair?"

Three groups of predictors were characterized by high degress of intercorrelation among constituent variables. These domains included respondent's posthospital mental health status, primary caregiver's mental health status, and the caregiver's perceptions of his support for the respondent. In order to avoid possible correlated error or suppression effects, in each domain data were reduced using a principal components analysis with a VARIMAX orthogonal rotation (Nie et al, 1975). Those questions having loading factors with an absolute value ≥ .50 were used to calculate component scores. In the two mental health status domains the variables included scores on the Bradburn Affect Balance Scale (Bradburn, 1969) and the P.O.M.S. measures of depression, anxiety, and hostility (McNair, Lorr, and Droppleman, 1971). In both cases only one principal component was obtained, with high scores suggesting a more involved mood state, greater symptomology, and less positive affect.

The caregiver support domain contained six questions from the primary caregiver's questionnaire: "How involved are you in taking care of the respondent?" (rarely, sometimes, a lot); "Has anyone helped you care for the respondent since his discharge from hospital?" (no, yes); "Do you expect the amount of help you give to the respondent to change?" (no, yes); "If you could no longer help the respondent, is there anyone else you could count on to provide such help?" (no one, someone); "If respondent required 24-hour care, how much would you be able to help?" (not at all, now and then, a short time, as long as needed); "If you could not help the respondent, how likely is it the respondent could continue living at the same residence?" (not likely at all, not too likely, fairly likely, very likely). Prior to the principal components analysis all questions were recoded so that higher scores always indicated greater involvement of or need for the caregiver. Thus, the high scores were "a lot," "yes," "no" (change was always known to mean reduction) "no one," "as long as needed," and "not likely at all," respectively. Analysis yielded two principal components tentatively designated as need for involvement of primary caregiver in respondent's care (involvement) and availability of primary caregiver for providing care to the respondent (availability). High scores on involvement indicate the caregiver is highly involved in respondent's care, the amount of help he provides is likely to change, and the respondent is unlikely to be able to stay in his current residence without the cargiver's help. High scores on availability indicate that the amount of help from the caregiver is not likely to change, there is no other informal caregiver, and the caregiver can provide 24-hour care. The question concerning whether or not the primary caregiver received any help in caring for respondent did not load on either component and so was entered into the regression equation as a separate variable.

Other questions of interest included whether or not the respondent received discharge planning in hospital (no, yes), the respondent's recollection of whether or not he received instruction prior to discharge on how to care for himself at home (no, yes), and the respondent's assessment of the adequacy of the amont of help he receives (needs much more help, needs a little more help, gets enough help, gets more help than needed, doesn't need any help). Also measured were the primary caregiver's self-assessed health (a combination of two global questions on physical and emotional status) and perceived strain as assessed by the Caregiver Strain Index (Robinson, 1983).[1]

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[1] This index is the sum of positive responses to twelve items: sleep is disturbed; inconvenient; physical strain; confining; family adjustments to be made; changes in personal plans; other demands on time; emotional adjustments; some behavior is upsetting; upsetting that R has changed from former self; work adjustments to be made; financial strain; completely overwhelmed.

Twelve variables assessing demographic status were included in the analysis, six for the respondent and six for the primary caregiver. The variables common to both groups of variables were age (in years), sex (male, female), race (white, non-white), marital status (married, not married) and education (highest grade completed). Respondent's income was also included, but caregiver's income was not because too many data were missing. Instead, caregiver's working status (working, not working) was employed as a proxy for income. Respondent's working status was not included because it was nearly constant, i.e., almost all respondents were retired and/or disabled and therefore were not working.

Finally, dummy variables were created to represent type of patient (heart vs. hip), relationship of primary caregiver to respondent (spouse, child, other relative, or friend or neighbor), and site of hospitalization. Tables 1 and 2 describe the variables for respondents and caregivers initially entered into the regression equation.

-- Tables 1 and 2 about here --

Analytic Methods

The respondent's self-assessed health was regressed on the independent variables using the SPSS New Regression procedure (Hull and Nie, 1981). The object of the regression analysis was to select the most parsimonious and powerful set of predictors of self-assessed health. The criterion for inclusion of predictors in the final model was that predictors must have beta weights significantly different from zero at $p \leq .05$. In the absence of universal standards, this level was chosen to simultaneously minimize both Type I and Type II error. That is, given the exploratory nature of the original study design, it was just as important to avoid falsely excluding significant predictors as it was to avoid falsely including non-significant predicators.

The regression model employed was both hierarchical and iterative in nature. From previous studies, we knew that socio-economic and demographic variables do predict self-assessed health. Yet from a substantive point of view, we felt respondents were unlikely to assess their health directly in terms of their caregivers work status or their own income. While socio-economic and demographic variables might have predictive power, we felt that these were mediated through other variables, such as the caregivers involvement in taking care of respondent, functional and mental health status, support system contact, etc. Therefore, socio-economic and demographic characteristics of respondents and primary caregivers were entered in succeeding steps after the inital entry of other independent variables.

Initially, there were 20 non-demographic independent variables to be entered. These evidenced a mild degree multicollinearity; 10% of all possible zero-order correlations were significant at $p \leq .05$. Furthermore, there were incomplete data on some variables for respondents, emphasizing the relatively small sample size given the number of predictors to be assessed. Therefore, in order to reduce multicollinearity and increase degress of freedom, iterations were performed (three in all) until all independent variables remaining satisfied the criterion for inclusion stated previously -- the set of significant, unique, non-demographic predictors of respondent's self-assessed health.

Results

Table 3 presents the results of the regression before adding the socio-economic and demographic variables. Respondents with high self-rated health are characterized, as in other studies, by a positive emotional state (positive affect with little depression, anxiety, or depression). More striking and unique to this study, however, is the relationship of self-assessed health to instrumental support, both formal and informal; and to characteristics of the support system. Thus, formal discharge planning in hospital for the respondent, and the receipt of services from the informal system both contribute to positive self-assessed health. The respondent's sense of not receiving enough help is negatively related to self-assessed health. An appraisal by the caregiver of his or her ability to provide care in the future and of the amount of strain generated by caretaking is inversely related to the respondent's self-assessed health. An appraisal by the caregiver of his or her own emotional and physical health is directly related to the self-assessed health of respondents.

While physical function was expected to be directly associated with self-assessed health, it is not, after iteration, a powerful or parsimonious predictor. Perhaps physical function is experienced or mediated through the perceptual variables of the respondent's receiving "enough" help and the caregiver's ability and commitment to continue giving care. That is, it is not how an individual functions in an objective sense, but the extent to which he or she feels services are needed and can be counted on to complement personal functional ability which affects self-assessed health.

-- Table 3 about here --

Table 4 presents the results of adding respondent and caregiver socio-economic and demographic variables to the regression equation. Somewhat surprisingly, respondents' socio-economic and demographic characteristics did not, as a group, contribute significantly to R^2. However, the caregivers' characteristics did, increasing the R^2 from .681 to .940.

-- Table 4 about here --

Accounting for all the statistical variance, however, is different from adding substantive meaning to the regression equation and predictive model. The caregivers' socio-economic and demographic characteristics add predictive power to the equation. As with physical function and help received, the meaning of the power of socio-economic and demographic characteristics may lie in the respondents' subjective interpretations of these variables as indicators of the capability or availability of the caregiver for providing aid. For example, does the caregiver's work status act as a facilitator (if C is not working) or as a constraint (if C is working)? Does the caregiver's marital status act as facilitator (if C is the spouse) or potential strain (if C is a married child with other obligations)? Do older caregivers constitute a more fragile component of the support system with more physical limits on their abilities?

Furthermore, both respondent's and caregiver's marital status and caregiver's work status may also be seen as characteristics of the respondent's support system. Thus, adding socio-economic and demographic variables to the regression equation reinforces the importance and weight of support systems in respondents assessments of their own health. The present findings, therefore, offer qualified support to previous work which shows that demographic and socio-economic variables have a direct effect on self-assessed health. Statistically they do; the mechanisms of <u>how</u> they operate to do so need further clarification.

Discussion

These results suggest that self-assessed health is a complex domain. Emotional state is indeed associated with self-assessments of health. Furthermore, in assessing their health, elderly assess not just their ability to function, but the extent to which other services are necessary to them; the extent to which someone must be involved as a caregiver and is committed and able; and the extent to which giving care strains or burdens that person. Finally, the extent to which services from all sources are planned, received, and considered sufficient by recipients is associated with their perceptions of their own health.

The literature on self-assessed health has not usually included or evaluated the contributions of a caregiver or caregivers, although some models of service utilization have regarded the involvement of close others as potential facilitators to service utilization. The present study suggests that caregiver and support system involvement may serve as proxy measures for individual perceptions of functional dependency.

At the beginning of this paper, we suggested that self-assessed health was a global domain involving objective and subjective components. Furthermore, we suggested that because self-assessed health comprises the processing of information resulting in a stance towards health outcomes and health behaviors, it is important to identify its predictors. As in other studies, the present analysis has found predictors of self-assessed health to include the respondent's affective state and socio-economic status. Beyond that, predictors of self-assessed health unique to this study include the extent of service receipt from others; and subjective assessments of the chief caregiver's abilities, commitment and strain.

In short, people do not assess their own health as isolated individual units. Health is assessed in relation to others, taking into account what the individual perceives may be needed from caregivers for self-maintenance, and what others are committed and able to do. Health is socially determined in part by the actions of others, and defined by one's perceptions of self and primary caregivers.

This study differs from much previous work, however, in that the measuring instrument for self-assessed health emphasizes recovery from a discrete event as well as a global assessment of health. It is possible that the recency of the event in combination with the content of the questionnaires may have sensitized the respondent to issues of service provision and the efficacy of his support network. (Besides problems of measurement, this would help account for the extremely high percentage of variance explained in the dependent variable). Nevertheless, the results indicate the saliency of support systems to the elderly's self-assessment of health. Further, the importance of support networks increases with the onset of health-threatening events. Beyond this question, the results of the present study confirm that the underlying structure of self-assessed health by the elderly is a multivariate one that includes affective, perceptual, and social components and involves assessment not only of the self but of caregivers as well.

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Table 1. Characteristics of 73 Patients with Followup Interviews, Collaterals, and Self-Assessed Health Scores

Name of Variable[1]	Composition	Meaning of High Score	[Range]	Mean	Standard Deviatio
Self-Assessed Health	The sum of answers to Qs: Progress in health problem [not very well, slowly, average, very well]; Satisfaction with progress [not satisfied, neutral, satisfied]; Overall health aside from problem [poor, fair, good, excellent]	Better Self-Assessed Health	[3 - 11]	8.63	1.91
R's Emotional Status at Followup	The sum of negatively weighted score for: Bradburn Balance; positively weighted scores for POMS Anxiety, Depression, Hostility	Greater symtomatology, less positive affect	[-15.4 - +1.02]	-8.7	3.35
Functional Dependency Index[2]	Respondent's(R's) self-report on 6 IADL items plus Caregiver's (C's) report on 5 Katz ADL items for R	More dependent, receives more assistance, less independence	[0 - 12]	5.02	4.28
Total Services Received from Formal Providers	Sum	Receives more services	[0 - 7]	1.55	1.82
Total Services Received from Informal Providers	Sum	Receives more services	[0 - 13]	5.9	2.73

[1] R=Respondent, C=Caregiver

[2] Robinson, B. and Gigy, L, "Functional dependency index." Presented at the Annual Meetings of the Western Gerontological Society, Alberquerque, New Mexico, April 1983.

Table 1 continued (page 2)

Name of Variable	Composition	Meaning of High Score	[Range]	Mean	Standard Deviation
Heart is Primary Problem at Hospital Admission	All Arteriosclerotic Heart Diagnoses: No Hip Diagnoses	0=Hip 1=Heart	DNA	DNA	DNA
Social Contact (as percent)	Number of people in R's personal network seen every two weeks divided by the total number of people (family, friends, neighbors, others) mentioned by R (times 100)	Sees more of potential informal support systems	[0-100%]	45.82%	23.18%
Discharge Planning	R Received D.P. in Hospital	0=No 1=Yes	DNA	DNA	DNA
Received Instructions in Hospital on Self-Care at Home	-	0=No 1=Yes	DNA	DNA	DNA
R Needs More Help	-	1=Needs no help 2=Receives more help than needs 3=Receives enough 4=Needs a little more 5=Needs much more	[1 - 5]	3.18 [Receives Enough]	.57
Spouse	Spouse is main caregiver	0=No 1=Yes	DNA	DNA	DNA
Children	Child is main caregiver	0=No 1=Yes	DNA	DNA	DNA

Table 1 continued (page 3)

Name of Variable	Composition	Meaning of High Score	[Range]	Mean	Standard Deviation
Friend or Neighbor	Friend or Neighbor is main caregiver	0=No 1=Yes	DNA	DNA	DNA
University Hospital	Patient was hospitalized at University Hospital	0=No 1=Yes	DNA	DNA	DNA
HMO Hospital	Patient was hospitalized at Health Maintenance Organization Hospital	0=No 1=Yes	DNA	DNA	DNA
Age (in Years)	-	Older	[65 - 91]	76.12	6.55
Sex		0=Male 1=Female	DNA	DNA	DNA
Race	-	0=White 1=Nonwhite	DNA	DNA	DNA
Marital Status	-	0=Not married 1=Married	DNA	DNA	DNA
Education: Highest Grade Completed	-	1=<7 yrs school 2=7-9th grade 3=part high school 4=high school graduate 5=post high school, business or trade school 6=junior college, AA degree 7=partial college 8=college graduate 9=part graduate training 10=graduate, professional degree	[1 - 10]	4.6 [high school graduate +]	2.65

Table 1 continued (page 4)

Name of Variable	Composition	Meaning of High Score	[Range]	Mean	Standard Deviation
Respondent Income	-	1=≤1499 2=1500-2999 3=3000-4999 4=5000-7499 5=7500-9999 6=10,000-14,999 7=15,000-19,999 8=20,000-24,999 9=25,000-34,999 10=35,000-49,999 11=≥50,000	[1 - 11]	5.52 [$6789]	1.97 [± $2000]

Table 2. Characteristics of Main Caregivers

Name of Variable	Composition	Meaning of High Score	[Range]	Mean	Standard Deviation
Caregiver Involvement Score	The sum of weighted scores for (positive weight) C states he/she is highly involved in providing care to R; (negative weight) Help provided is likely to change in future; (Positive weight) R is unlikely to be able to stay at present residence without C's help.	C's present and future involvement and R's dependency is high	[.53 - 5.06]	2.75	1.28
Caregiver's Availability in Caregiving	The sum of positively weighted scores for: Help from C unlikely to change; No one but C can provide help; C can provide 24-hour care.	C's present and future involvement is high and comprehensive:	[1.96 - 5.29]	3.58	1.13
Caregiver is Assisted in Caregiving	C states to Q: has been assisted by other in caring for R	0 = No 1 = Yes	[DNA]	DNA	DNA
Caregiver's Affect	The sum of: negatively weighted Bradburn Balance Score; positively weighted POMS Anxiety, Depression, Hostility Scores	Greater symptomatology, less positive affect	[-18.07 - +2.14]	-9.77	4.56
Caregiver's Self-Rated Health	The sum of answers to Q's: overall emotional and overall physical health at this time	Higher self-rated health	[4 - 8]	6.26	1.10
Caregiver Strain Index[1]	The sum of positive responses to 12 items	Greater strain	[0 - 12]	3.52	3.50

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[1] Robinson, B., "Validation of a caregiver strain index." Journal of Gerontology 38: 344-348, 1983.

Table 2, continued

Name of Variable	Composition	Meaning of High Score	[Range]	Mean	Standard Deviation
Age (in years)	-	Older	[22 - 83]	59.75	13.37
Sex	-	0=Male 1=Female	DNA	DNA	DNA
Race	-	0=White 1=Nonwhite	DNA	DNA	DNA
Marital Status	-	0=Not married 1=Married	DNA	DNA	DNA
Education (highest grade completed)	-	1. <7 yrs school 2. 7-9th grade 3. partial h.s. 4. H.S. grad 5. Bus., trade 6. Jr. College, AA 7. Partial College 8. College Grad 9. Part prof. training 10. Grad. level, professional degree	[1 - 10]	5.34 [high school grad & some additional schooling]	2.58
Working Status	-	0=Not working 1=Working	DNA	DNA	DNA

Table 3. Predictors of Patients' Self-Assessed Health Two Months Posthospital

Predictor[1] Variables	B	Beta	R^2 Change
R's Emotional Status	-.377***	-.650	.328
C's Self-Rated Health	.573**	.311	.084
R Needs More Help	-.879***	-.350	.081
C's Availability to Provide Care	-.812***	-.450	.077
Caregiver Strain Index	-.185**	.318	.031
Received Discharge Planning in Hospital	1.095**	.269	.042
Total Services Received from Informal Providers	-.185**	.318	.031

$F(7,40)=12.211$****

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$
**** $p \leq .0001$

[1] Predictor variables are listed in the order in which they entered the regression equation in a stepwise procedure.

Table 4. Impact of Socioeconomic and Demographic Predictor Variables on Self-Assessed Health

	(1)			(2)			(3)		
Variables	B	BETA	R^2 Change	B	BETA	R^2 Change	B	BETA	R^2 Change
Non Socio-Economic and Non-Demographic Predictors			.681***						
R's Emotional Status	-.377***	-.650		-.384***	-.661		-.412***	-.711	
R Needs More Help	-.879**	-.350		-.941**	-.375		-1.288***	-.513	
C's Availability to Provide Care	-.812***	-.450		-1.087***	-.602		-1.173***	-.650	
Discharge Planning in Hospital	1.095**	.269		1.655**	.406		2.211***	.543	
Total Services Received From Informal Providers	.145*	.217		.132	.197		.095*	.142	
Caregiver Strain Index	-.185**	-.318		-.208**	-.356		-.205***	-.351	
Respondent Socio-Economic Demographic Predictors						.047			
Age				-.025	-.081		-.018	-.060	
Sex				.033	.008		.531	.129	
Race				.642	.129		-1.042	-.210	
Marital Status				1.027	.244		1.965***	.467	
Education: Highest Grade Completed				.008	.011		.035	.045	
Respondent's Income				-.163	-.153		-.224**	-.211	
Collateral Socio-Economic and Demographic Predictors									.212***
Age							-.083***	-.546	
Sex							-.296	-.068	
Race							2.180**	.431	
Marital Status							-.251	-.058	
Education: Highest Grade Completed							-.171**	-.216	
Working Status							-.773*	-.186	
Total R^2			.681			.728[1]			.940[2]

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

3,29)=5.976, p<.0001

(19,23)=18.871, p<.0001