

CAncer Rehabilitation Evaluation System

CARES

Manual

Developed by

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Introduction

One out of every four individuals will develop cancer during their lifetime and three out of four families will be affected by the disease. These figures are rising and expected to continue to increase over the next decade (American Cancer Society, 1986). Patients are living for extended periods of time and cancer is more often a chronic rather than acute life-threatening disease. Cancer has a severe impact on individuals as well as their families, affecting all areas of functioning: physical, psychological, social, and vocational (Cohen, Cullen, & Martin, 1982). Cancer patients have a variety of day-to-day problems and rehabilitation needs (Ganz, Schag, & Heinrich, 1985; Habeck, Blandford, Sacks, & Malec, 1981; Heinrich, Schag, & Ganz, 1984). Often these problems go undetected and untreated, in spite of the mounting evidence that these problems can resolve with appropriate interventions (Lehmann, DeLisa, Warren, deLateur, Sand-Bryant, & Nicholson, 1978).

One of the major factors contributing to the large numbers of problems that are undetected and untreated is the absence of appropriate instruments to assess the needs of patients. Rainey (1983) stated, "Measurement issues have been and continue to be a key concern for researchers and clinicians dealing with the behavioral issues in cancer."

The CARES represents the first clinically relevant instrument designed to assess the rehabilitation needs and day-to-day problems of cancer patients.

The CARES has several important features. First it was developed specifically for cancer patients. Since cancer patients' experiences were the primary source for the selection of items, they are relevant to cancer problems and treatment. This is a unique feature and unlike psychological instruments, CARES was not designed and standardized for a psychiatric population. Patients are able to identify with the purpose of the instrument, and thus, have positive reactions to completing it.

Second, the CARES has been administered to more than 1100 cancer patients representing a variety of sites and phases of the disease. Normative scores have been developed from this large sample and provide the user with a frame of reference for comparing individual patients.

Third, the CARES is a self-report instrument which also has many advantages. The patient is able to report his/her own experience in a standard and efficient way. In addition, the CARES has been printed in large print so that it is easy to read and understand by an elderly or disabled population. The only alternative to assessing specific problems of cancer patients is a detailed interview and these sometimes take 1 to 2 hours of a well-trained professional's time. The CARES can be administered with a minimum of training and later reviewed by a professional for treatment decisions. A brief follow-up interview can be done to clarify problems and make referrals or interventions.

Fourth, detailed work has been done on the scoring of the instrument and it can be summarized into a variety of scores depending on the specificity needed. There are five summary scales representing problems and changes in the following areas, Physical, Psychosocial, Medical Interaction, Marital and Sexual.

Fifth, a developing body of literature exists which addresses the reliability and validity of the instrument. The instrument has evolved over time with attention paid to both its clinical and research uses. The first studies suggest that it is sensitive, reliable, and measures what it purports to measure.

Finally, the CARES has an IBM compatible computer program that scores the patients' ratings, compares the scores to an appropriate normative group and generates a professional report summarizing the areas of need. The program also creates a data base of the responses, generates a report for professionals and a report for patients that actively involves them in their recovery.

PART I. How to Use CARES

Description of CARES

CARES is a comprehensive list of 139 problem statements encountered by cancer patients on a daily basis as they live with the disease and its treatment. Patients rate each problem statement on a five point scale, zero representing "Not at All" (no problem) and four representing "Very Much" (severe problem). Patients also indicate whether a problem having a severity rating of 1-4 is one that they would like help with by circling Y for Yes and N for No.

The first 88 items are completed by all patients. The remaining 51 items may not apply to everyone. If a patient has not had chemotherapy, for example, then he/she would not be able to rate the chemotherapy items. There are 10 subsections beginning with a question that the patient responds yes or no. If the answer is no, the patient proceeds to the next subsection. If the answer is yes, the patient answers the remaining questions in the subsection. A minimum of 93 items and a maximum of 132 items may apply to an individual patient. One item, #100, has two components, however only one item applies to any one patient because it is dependent on whether the patient is male or female. The subsections represent the following domains:

presence of children	single
currently employed	chemotherapy treatments
looking for work	radiation treatments
attempted intercourse since cancer	presence of ostomy
married	presence of prosthesis

The CARES can be scored several ways. The most detailed level of scoring consists of 31 subscales with 7 remaining miscellaneous items. A broader overview scoring consists of 5 summary scores. The 5 summary scores include problems and needs in the following domains, Physical, Psychosocial, Medical Interaction, Marital, and Sexual. Detailed information about scoring is discussed in a later section.

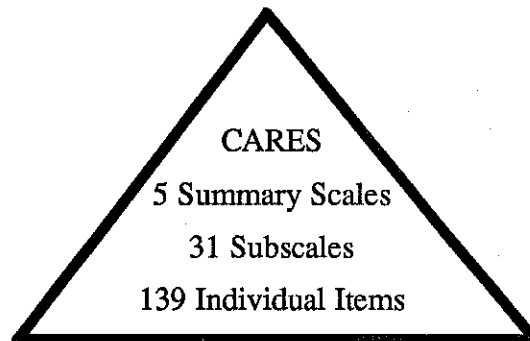
Administration

CARES was designed as a self-report instrument in which the patient reads the simple directions and completes the items. It is often helpful, however, to introduce the questionnaire and give a brief set of instructions emphasizing the time frame, how to respond and the need for the patient to attend to each question. An example of an introduction is written below:

"Hello, I am _____ (name) the _____ (doctor, psychologist etc.). I would like to know more about how cancer has affected your daily life so that I can understand more about your needs. This questionnaire will help me to know how to help you and I would like you to complete it. All the information that you provide will be confidential. Only _____ will be aware of your responses. The questionnaire is made up of questions that other patients have suggested are important. Some of the statements are personal. I want you to complete the background information on the first page and then begin by reading each statement. You must decide HOW MUCH EACH PROBLEM APPLIES TO YOU. I want you to think about the last month including today. Read each statement and then decide whether it "Does not apply", "applies A little", "applies A fair amount", "applies Much" or "applies Very much." Then circle the number that represents your decision. If you respond with a number between 1 and 4, I want you to also think about whether this is a concern that you would like some help with. Help can be information, reassurance, or more specific help solving the problem. There are some sections that may not apply to you. These sections begin with a question. Circle the yes or no response. If the answer was no, proceed to the next section. If your answer was yes, then answer the remaining questions in that section, before proceeding. This should take between 20 minutes and 45 minutes, depending on how quickly you work. Take as much time as you need. If you have any questions please ask me. Also, try to answer all of the questions and remember to think about the last month, including today."

Scoring CARES

How the CARES is scored is dependent on the level of detail required by the individuals administering it. When making that decision, thinking of a pyramid may be helpful. The top of the pyramid is a summary of the entire instrument. The next level are the five higher-order factors or summary scores. The next level are the 31 subscales which summarize more detailed areas of need and problems. Finally the base of the pyramid are the individual items. See diagram below:



The three top levels of the pyramid have five types of scores that summarize somewhat different information. The more scores that are calculated, the more detail is obtained. However, we recommend that the six summary scales (CARES and the 5 higher-order factors) be calculated and that the subscales be used more as a clinical categorization to provide information about areas in need of intervention. Of course, if the CARES is being used to study a particular area, then individual subscales can be calculated in the same way that the summary scales are calculated. The first type of score that should be calculated is a severity rating (Severity). This represents a summation of all items within a scale rated between 1 and 4. Second, the number of items that have the potential of applying to a particular patient (# of Potential Problems) for each scale must be counted so that appropriate denominators can be used. Third, the number of items that have the potential of applying to a particular patient and has received a rating between 1 and 4 must be counted (# of Endorsed Problems). These three scores are used to generate the Average Severity Rating, which is Severity divided by the # of Endorsed Problems and the Global Score which is Severity divided by the # of Potential Problems.

To score the CARES by hand, the user should obtain the CARES Score and Profile Sheet in addition to this manual. On side two of the CARES Score sheet, all 139 items from the CARES are abbreviated with their numbers and grouped by subscale and summary scale. The user should transfer the patients responses between 1 and 4 from the CARES Booklet onto the score sheet. Zero responses do not need to be transferred. The three simple scores (Severity, # of Endorsed Problems, # of Potential Problems) should be calculated for each summary scale and transferred to the right-hand bottom square where the final calculations are made. The # of Potential Problems has already been counted for each summary scale. In those subscales in which it might vary because certain sections do not apply to a particular patient, all possible options are listed. Circle the one that applies to the individual patient. The only time these scores might vary are when a patient fails to answer a question and the user did not obtain the information from the patient. These are missing data and should be subtracted from the # of Potential Problems. Most of the patients in the normative sample did not have any missing data, however, the rule of thumb that we used was that if there were more than 75-80% of the items missing for any calculation, then the score should not be calculated and converted to a normative score. In these cases the individual items will have to be relied upon for intervention and the case should be omitted in research protocols.

It should also be noted that the miscellaneous subscales and items should be summed into one score for the purpose of calculating the overall CARES score. Once the 3 preliminary scores are transferred to the bottom right square, the Average Severity Rating and the Global Score can be calculated for each summary scale by making the correct division. The overall CARES scores can be calculated by summing down the column of Summary Scale including the Miscellaneous items which have already been grouped together.

Once the raw scores have been obtained they can be converted to T scores using the tables in Appendix C, and a profile can be drawn on the front side of the score sheet. Start by transferring the raw scores for the five summary scales and the overall CARES Score. Use the Global score which is the Severity score divided by the Number of Potential Problems. In addition to the Global Scales, the Average Severity Rating and # of Problems Endorsed for the CARES scores are profiled.

The next step is to select the appropriate table for converting the raw scores to T scores. There are six different groups that can be used, three for males and three for females. The six groups briefly are:

1. Prostate Cancer Patients
2. Breast Cancer Patients
3. All Male Non-Prostate Cancer Patients
4. All Female Non-Breast Cancer Patients
5. All Male Cancer Patients (Prostate and others)
6. All Female Cancer Patients (Breast and others)

Before selecting the appropriate comparison, please review the demographic and medical data presented for the normative samples. We recommend that a norm be selected that best represents the type of patient being evaluated, e.g. site of cancer and stage of disease. Once the normative sample is selected, circle the norm chosen on the top of the profile sheet. Then turn to the three tables in the Appendix that apply to the norm group. Find the raw score on the left-hand column and the T score under the name of each scale. If the exact raw score does not exist then find the one above and below the patient's raw score. Determine whether the T score changes between these two values. If not then use that T score, if it does, then use the one that is closest to the patient's raw score. Transfer these values to the profile sheet underneath each raw score. When this is complete, then graph the T scores and connect the points. This will provide a graphic comparison of how the patient is doing relative to the normative sample.

A sample profile and complete score sheet is presented in Appendix A and can be used as a reference when scoring the CARES Booklet.

The following table is a list of the subscales and higher-order factors with the respective item numbers that must be included. Items marked with an asterisk * are those that will apply to a specific subgroup of patients, e.g. on chemotherapy.

Items in Subscales and Higher-Order Factors

Subscales	N items	Item Numbers on CARES
PHYSICAL	26	1-26
Ambulation	4	1-4
Activities of Daily Living	4	5-8
Recreational Activities	4	9-12
Weight Loss	5	13-17
Difficulty Working	2	18-19
Pain	4	20-23
Clothing	3	24-26
MEDICAL INTERACTION	11	27-37
Problems Obtaining Information from Medical Team	3	27-29
Difficulty Communicating with Medical Team	6	30-35
Control of Medical Team	2	36-37
* PSYCHOSOCIAL	44	38-73, 89-96
Body Image	3	38-40
Psychological Distress	6	41-46
Cognitive Problems	3	47-49
Difficulty Communicating with Friends/Relatives	7	50-56
Difficulty Interacting with Friends/Relatives	7	57-63
Anxiety in Medical Situations	6	64-69
Worry	4	70-73
* Interaction with Children	3	89-91
* At Work Concerns	5	92-96
* SEXUAL	8	74-77, 99-102
Sex Interest	4	74-77
* Sexual Dysfunction	4	99-102
* MARITAL	18	103-120
* Communication with Partner	6	103-108
* Affection with Partner	4	109-112
* Interaction with Partner	4	113-116
* Overprotection by Partner	2	117-118
* Neglect of Care by Partner	2	119-120
Miscellaneous Subscales		
* Dating	5	121-125
* Chemotherapy Related Problems	9	126-134
* Radiation Related Problems	3	135-137
Compliance	4	78-81
Economic Barriers	4	82-83, 97-98
Miscellaneous Items	7	
transportation		84
gain weight		85
procedures painful		86
diarrhea		87
bladder control		88
* ostomy		138
* prosthesis		139

* Applies to a subgroup of patients

PART II. History, Development, and Research on CARES

Theoretical Background

The instruments' theoretical underpinnings are based in a competency-based model of coping with cancer (Meyerowitz, Heinrich, & Schag, 1983). This model was first described by Goldfried and D'Zurilla (1969) and applied to college freshmen. It was later suggested as a model for assessing coping with chronic illness (Turk, 1979; Turk, Sobel, Follick, & Youkilis, 1980). The model conceptualizes coping in operational terms and involves the individual's interactions with his/her environment. Coping is defined as competent responses to problematic situations. The model has three components, problem specification, response enumeration, and response evaluation. The first component identifies the domain of problems with which an individual must cope and provides a normative data base. The CARES was a first step in the development of this model in that it would provide a method of data collection which could lead to a comprehensive data base of the problems with which cancer patients must cope. The instrument represents an attempt to move away from assessing cancer's impact in terms of emotional distress and toward assessing more specific components of behavior affected by cancer and its treatment. Our assumption is that a cancer-specific instrument will lead to better documentation of problems, better assessment of individuals, and therefore, more appropriate and behaviorally-based interventions.

Item and Scale Development

CARES is a comprehensive survey instrument that documents the problems and rehabilitation needs of cancer patients. It was developed from the CIPS, the Cancer Inventory of Problem Situations. The first version of the CIPS contained 131 items and was created through several steps. First, extensive searches of the literature were conducted and a list of problems were generated. Problem-focused, open-ended interviews were conducted with 100 patients who had a variety of cancers. Spouses or significant others were included in the interviews as additional sources of problems that patients might be less likely to report. The problem list was expanded based on these interviews. Finally, the cumulative list of problems were reviewed by medical oncologists, oncology nurses, a physician's assistant on an oncology unit, a chaplain, and mental health professionals who worked with cancer patients and their families. After extensive discussions with these professionals, a final list of problems was generated that represented the first instrument and was used in the first study of the CIPS (Schag, Heinrich & Ganz, 1983).

Factor analytic techniques were used to understand the substructure of the first version of the CIPS. Three factor analyses were performed on the statements using a varimax rotation. The study of the structure of the CIPS led to a revision and rewriting of the instrument. The revision of the CIPS contained 142 items, 104 of which were contained in the preliminary version and 38 of which were added after the initial study. Items were changed, deleted or added for a variety of reasons including comprehension, relevance, reliability, frequency of occurrence, and representativeness of the problem domains. For example, the preliminary study identified the need for questions in the areas of psychological distress and ostomies. Additional professionals reviewing the instrument suggested areas that were not well represented and so items were added to existing problem domains. Finally, some of the original content domains were separated into smaller subsets. Treatment-related effects were divided into radiation and chemotherapy problems. The general category of problems with significant others was divided into problems with children, patients' difficulty communicating with friends and relatives, and friends and relatives difficulty interacting with patients. Pain which had previously been only one item was expanded into a subscale which included items about pain medication.

A priori the 142 items of the CIPS were divided into 30 subgroupings which included the changes described above as well as the original subscales. Nine items were not grouped and were considered miscellaneous but necessary in representing the problem areas of cancer patients. The 30 groupings are listed below:

A Priori Subscales and Number of Items

Subscale	# of Items
Difficulty communicating with medical team	6
Chemotherapy-related problems	9
Functional health status	9*
Communication at work	4
Worry	4
Cognitive problems	3
Problems obtaining information from medical team	3
Body image	3
Weight maintenance	6
Difficulty communicating with friends and relatives	7*
Compliance	4*
Clothing	3
* Control of medical team	2
Discomfort during procedures	3*
Job-related problems	2
Friends and relatives difficulty interacting with patients	7*
Anxiety in medical situations	4
Communication with partner	6
Affection with partner	4
Interaction with partner	4
Care by partner	2
Dating	5
Sexual interest	5*
Sexual dysfunction	5
* Recreational Activities	4*
Psychological Distress	5
* Looking for Work	2*
Radiations Problems	3*
Children	3*
Pain	4
* Miscellaneous Items	9*

*New items or scale

A major study was undertaken to evaluate the revised instrument and to make decisions about the content of CARES. Four-hundred seventy-nine cancer patients participated in this study (Schag, Heinrich, Aadland, & Ganz, submitted for publication). Extensive factor analyses were conducted using the SPSS-X statistical package and a variety of techniques were employed including Maximum Likelihood extraction (ML) and Unweighted Least Squares extraction (UL), with both varimax rotations and oblique rotations. The CARES is a complex instrument and, therefore, a detailed approach was designed prior to analyses that would appreciate the complexities of the instrument. Our goal was the reduction of data into meaningful and usable components which is important for its ultimate utility as a clinical and research tool.

In the first set of analyses items were grouped into four major problem categories, personal (N=41 items), medical (N=42 items), work (N=9 items), and relationship (N=49 items). Separate factor analyses including all patients were conducted on each of these groups of items. The UL and ML extractions methods with varimax and oblique rotations produced consistent results for most factors. The number of factors with eigenvalues greater than one ranged from three factors to 12 factors.

When the four categories were created it was believed that some factors in the personal category might overlap with variables in each of the other categories. A second set of factor analyses were conducted to make certain that the initial categorization did not separate problems that potentially belonged together. These analyses grouped the personal items with the items in each of the other categories, i.e., work, medical and relationship. While the loadings of items and numbers of factors varied, most variables loaded into patterns similar to those found in the first analyses.

Since some variables only apply to a select group of individuals, these variables were factor analyzed a third time. Items were grouped according to a criterion variable and only those subjects who represented the criterion variable were selected for the analysis. This eliminated patients from the analyses for whom it had not been possible to have the problem. The subgroups and criterion variables were chemotherapy (N=9 items, 140 patients), radiation therapy (N=3 items, 44 patients), work (N=5 items, 178 patients), sexual dysfunction (N=4 items, 276 patients), children (N=3 items, 320 patients), marital (N=18 items, 339 patients), and dating (N=5 items, 140 patients). Similar factor structures as compared to the analyses involving all patients were found. Finally, one overall analysis was also conducted for comparison which included all items. Thirty-five factors were obtained with eigenvalues greater than one.

When all of the above analyses were complete, a large matrix was constructed with all outcomes from all analyses. This matrix was then reviewed and consistent patterns of item groupings were determined. While there were some items that loaded somewhat differently in the different analyses, when all results were considered, there were definite and consistent patterns. Thirty-one consistent and interpretable factors were obtained. Seven items were not included in any factors, however, they have been retained in the scale because they represent clinically significant problem areas. Two items were deleted from the instrument because of discrepant loadings and/or were not believed to represent a unique and significant problem area.

The thirty-one scales were compared to the original 30 a priori groupings. Twenty-six were exactly the same. The factor analytic procedure led to the splitting of two scales, thus creating two additional scales. Functional Health Status was divided into two components, Activities of Daily Living and Ambulation. Care by Partner was divided into two scales, Neglect of Care by Partner and Overprotection by Partner. Two items from the Discomfort with Procedures grouping loaded consistently with the Anxiety in Medical Situations Subscale. The one remaining item from the Discomfort with Procedures grouping became a miscellaneous item. Three of the miscellaneous items loaded highly on other subscales and therefore were included in these. Alpha coefficients were calculated for the 31 subscales. The mean for all subscales was .81. More than two thirds of the scales have alphas of .80 or higher and only 1 scale is in the .5 range. The two lowest scales have only two items, and fewer items have a lowering effect on the alpha coefficient. The subscales and their alphas are presented in the next table.

Factor Loadings for Five Higher-Order Factors and Alphas for 31 Subscales

	Factor	alpha Loading
PHYSICAL		
Ambulation	.81	.83
Recreational Activities	.73	.79
Activities of Daily Living	.68	.73
Difficulty Working	.61	.93
Pain	.60	.77
Weight Loss	.53	.76
Clothing	.43	.86
PSYCHOSOCIAL		
Difficulty Communicating with Friend/Relatives	.69	.84
Anxiety in Medical Situations	.60	.88
Psychological Distress	.56	.87
Friends/Relatives Difficulty Interacting	.48	.83
Cognitive Problems	.45	.85
At Work Concerns	.38	.83
Body Image	.37	.83
Interaction with Children	.35	.78
MEDICAL INTERACTION		
Problems Obtaining Information from Medical Team	.73	.81
Control of Medical Team	.55	.86
Difficulty Communicating with Medical Team	.34	.89
MARITAL		
Interaction with Partner	.83	.90
Affection with Partner	.70	.87
Communication with Partner	.67	.92
Neglect of Care by Partner	.66	.61
Overprotection by Partner	--	.51
SEXUAL		
Sex Interest	.77	.80
Sexual Dysfunction	.42	.88
MICELLANEOUS SUBSCALES		
Chemotherapy Related Problems	.89	
Radiation Related Problems	.68	
Dating	.90	
Compliance	.76	
Economic Barriers	.68	

Summary Factors

While the above solution represents an important data reduction method which has clinical and research applications, there are times in which fewer factors might be useful in summarizing the results of the CARES. To this aim a factor analysis of the 31 subscales was carried out. The factor analysis of the 31 subscales may be thought of as a higher-order (second-order) factor analysis (Gorsuch, 1983) attempting to find more fundamental dimensions underlying the 31 first-order factors.

In the factor analysis of the 31 subscales all subjects were included. In a UL procedure with varimax rotation and a minimum eigenvalue of one set as the criterion, a 7 factor solution was produced. While all seven factors were clearly interpretable, two factors did not provide greater reductions in the data. These two factors included only one subscale each, Chemotherapy and Dating problems which are issues that only apply to a minority of the patients who are either on chemotherapy or are single. Five of the higher-order factors significantly reduced the data by incorporating 26 of the 31 subscales. The five higher-order factors

clearly represent major areas in the assessment of cancer patients and are an excellent way to summarize the CARES in a more concise format. The five higher-order factors represent the following domains:

1. **Physical:** the physical changes and disruption of daily activity caused by the disease
2. **Psychosocial:** psychological issues, communication, and relationship (other than partners) problems
3. **Medical Interaction:** problems interacting and communicating with the medical team
4. **Marital:** problems associated with a significant marital-type relationship
5. **Sexual:** problems related to interest and performance of sexual activity.

The five subscales with low factor loadings (less than .3) and/or those that did not combine with other subscales have been grouped as miscellaneous subscales. The factor loadings for each subscales on the five-factor solution are presented in the previous table.

Alpha coefficients were also computed for the five higher-order factors on the same sample of 479 patients. When the normative data were collected alpha coefficients were also calculated as a confirmation of the earlier findings. The alpha coefficients for both samples are presented below:

Alpha Coefficients for Five Higher-Order Factors in Two Samples

Five Factors	N=479	N=1047
Physical	.92	.92
Psychosocial	.94	.94
Medical Interaction	.87	.87
Marital	.92	.92
Sexual	.88	.82

Correlation coefficients were also calculated to determine the inter-relationship of the CARES and the 5 higher-order factors. The table below presents these data for the normative sample of 1047 patients.

Intercorrelations of CARES Summary Scales

	CARES	PHYSICAL	PSYCHO-SOCIAL	MEDICAL	MARITAL
Physical	.81				
Psychosocial	.91	.61			
Medical	.64	.39	.59		
Marital	.49	.27	.40	.27	
Sexual	.43	.34	.32	.18	.32

The alpha coefficients for the higher-order factors are all high and suggest that they have internal consistency. In addition, the intercorrelation matrix for the summary scales show low to moderate correlations which suggests that the summary scales are measuring different problems and needs. Both of these sets of data suggest that the CARES has excellent psychometric properties.

Clinical and Research Use of the Summary Scales

The substructure has important ramifications for the use of CARES in both clinical and research settings. As shown earlier, the CARES can be viewed as a pyramid. Different uses can be ascribed to each level of the pyramid. The base of the pyramid, consisting of individual items (N=139), represents very specific problem identification and is important for clinical use when planning specific interventions for patients. From a research perspective, this also allows specification of problems with the potential for describing outcomes related to type of cancer, treatments, stage or phase of disease. The next level of the pyramid, the subscales (N=31), represents a more concise summary of each patient's problems and profiles the most significant areas. These areas may be most useful as a clinical categorization system generally profiling areas of need. The individual items are also needed to plan and implement interventions. One of the most important levels, going up the pyramid, are the five higher-order factors (summary scales). They summarize the

major areas of function, physical, psychosocial, marital, sexual and medical interaction. At the clinical level, they provide a general summary of a patient's status in a particular area. In a research setting this can be used as an outcome measure. They have the potential to be useful in psychological as well as medical research. For example, patients participating in a psychological intervention such as group therapy could be monitored at more than one point in time and any changes occurring on the five dimensions could be assessed. Similarly, with chemotherapy trials, patients' functioning and quality of life are finally becoming major issues in the evaluation of treatments. These broad scale measures could be used to assess the negative or positive impact of such treatment regimens. In addition, the five dimensions represent important descriptions of a patient population and are helpful in characterizing subject characteristics for a particular study.

Finally, the top of the pyramid, the overall CARES score, represents a very general index of patients' rehabilitation needs and may be helpful in research and clinical settings tracking patients' improvement or decline.

Reliability

Two major reliability studies of the CARES have been conducted (Schag et al., 1983, Schag et al., 1988). The first involved 71 patients who completed the first version of the CARES twice at approximately one week intervals. Pearson product-moment correlations were conducted on three of the CARES summary scores and were as follows: Total Severity Rating, $r=.88$; Total Number of Problems, $r=.94$; Average Severity Rating, $r=.84$. These coefficients were extremely high and indicated excellent test-retest reliability. Individual items were also evaluated with regard to whether patients had been consistent in rating each problem as present or absent on both administrations. A crosstable for each item was constructed and frequencies of agreement and disagreement were calculated. The frequencies of agreement ranged from 70 to 97 percent, with an average rating of 87 percent.

In the second study, 120 lung, colon, and prostate patients participated. They completed the revised version of the CARES on average of 10 days after the first administration. The majority of the patients were well functioning as indicated by the Karnofsky Performance Status score ($M=87.33$) which would suggest relatively good stability across a short period of time. Three types of analyses were conducted on the data to assess reliability. The first two analyses paralleled those used in the first study. Once again the correlations were strong and positive with all of the correlations being above .82. Similarly, between 84% and 88% of the time the patients' second rating agreed with their first rating in evaluating whether a problem existed or did not.

A third analysis was conducted in the second study which determined how often the patient made the exact same rating, and evaluated how much the rating differed when they did not agree. The patients made the exact same rating 77% of the time with 70% of the disagreements being off by only one rating value. Thus, on the average, 93% of the time patients made the exact rating or differed by only one value. This type of analysis is important because it assesses the degree to which patients' ratings are discrepant. Given the short period of time between administrations of the instrument, small changes would be expected in some patients and very few large changes. The three types of analyses from the second reliability study are presented in the following table:

Test-Retest of CARES and Five Summary Scales

Summary Scales	N	r	% Agreement		% Disagreement		
			Present/Absent	Agreement	off by 1	off by 2	off by 3/4
CARES	120	.91	86	77	16	4	3
Physical	120	.89	84	72	20	5	3
Psychosocial	120	.91	88	80	15	3	2
Medical	120	.82	88	82	13	3	2
Marital	92	.86	86	80	14	4	2
Sexual	72	.84	86	75	14	7	4

The results are also presented for the third type of analysis for the 31 individual subscales. The results are similar to the summary scales presented above. The average amount of disagreement by more than two ratings was very small. When disagreement does exist, it was usually within one scale value. Ambulation and recreational activities have the lowest rates of agreement (59%), however, the majority of disagreements differed by only one value (29% and 27% respectively).

Test-Retest Agreements in 31 Subscales

Subscales	Percent Agreement	Percent off by 1	Percent Disagreements off by 2	Percent Disagreements off by 3 or 4
PHYSICAL				
Ambulation	59	29	8	3
Recreational Activities	59	27	9	5
Activities of Daily Living	79	17	3	1
Difficulty Working	76	15	4	5
Pain	72	19	5	4
Weight Loss	83	12	4	1
Clothing	71	23	4	2
PSYCHOSOCIAL				
Psychological Distress	65	30	4	1
Worry	72	22	4	2
Anxiety in Medical Situations	77	19	3	1
Cognitive Problems	78	20	1	1
Body Image	75	16	5	4
At Work Concerns (N=35)	93	5	1	1
Difficulty Communicating with Friends/Relatives	83	11	2	4
Friends/Relatives Difficulty Interacting	83	11	4	2
Interaction with Children(N=93)	88	9	1	2
MEDICAL INTERACTION				
Problems Obtaining Information from Medical Team	82	13	3	2
Difficulty Communicating with Medical Team	82	2	2	2
Control of Medical Team	83	11	4	2
MARITAL				
Communication with Partner (N=92)	73	19	6	2
Affection with Partner (N=92)	84	12	3	1
Interaction with Partner (N=92)	82	14	2	2
Overprotection by Partner (N=92)	82	14	3	1
Neglect of Care by Partner (N=92)	91	8	0	1
SEXUAL				
Sex Interest	72	13	8	7
Sexual Dysfunction (N=72)	73	16	7	4
Chemotherapy Related Problems (N=15)	80	16	3	1
Radiation Related Problems (N=6)	83	17	0	0
Dating (N=28)	67	14	5	15
Compliance	95	3	1	1
Economic Barriers	83	12	2	3

Note. N=479 unless specified.

The instrument appears to have a high degree of reliability and this reliability is consistent across time, patients, and other changes. Most patients identify the same problems from one week to the next and rate them in similar ways. The amount of variability in the ratings that does exist, may reflect to a certain degree, the small changes that occur for cancer patients on a daily or weekly basis as they live with the disease. It is not uncommon for some patients to have substantial changes on a weekly basis depending on the fluctuations in the medical condition or the influence of various treatments.

Validity

The CARES represents a unique instrument that is made up of a variety of constructs all of which relate to the range of problems possible when a patient lives with cancer on a daily basis. Because of the wide range of problem areas measured, validation is a difficult process. Validity will have to be established over time and with the use of a variety of methods and instruments. Validity issues have been addressed in the same studies as the reliability.

Content Validity

In the first research study, (Schag et al, 1983) content validity of the instrument was addressed. Both professionals and patients were asked about the content validity of the instrument. Of the 22 patients who were specifically asked whether the CARES represented their experiences as cancer patients, twenty of them said that it did. The two patients who responded negatively indicated that most statements did not apply to them at that time; they did not know whether they applied to other patients. Most of the patients felt that the CARES neglected two problem areas, the impact of cancer on their psychological well-being and the care and maintenance of ostomies. The professionals who reviewed the instrument also found it lacking in these two areas.

In a subsequent study of the psychometric properties of the CARES, 64 cancer patients who completed the instrument were queried about content validity in a post-administration interview (Heinrich, Schag, Aadland & Ganz, submitted for publication). Ninety percent reported that the CARES reflected the day-to-day problems of cancer patients. Eighty-seven percent felt that no problem areas were neglected. Only 13% of the patients reported an additional problem. The few additional problems that were not covered by the CARES were constipation, transportation difficulties and speech and hearing difficulties. The post-administration interview clearly supports the content validity of the instrument.

Concurrent Validity

The first study (Schag et al., 1983) had a sample of 87 patients and provided some preliminary evidence of concurrent validity. A strong correlation was found between the CARES and the SCL-90 (Derogatis, 1977) ($r=.69$) which is a measure of psychological distress and has been frequently used with cancer patients.

The second study (Schag et al., submitted for publication), conducted a more extensive evaluation with 120 cancer patients. Four existing measures were used to concurrently evaluate the validity of the instrument. The Global Severity Index of the Symptom Checklist-90 (SCL-90) (Derogatis, 1977) was included as a concurrent measure of psychological distress since many of the problems on the CARES are psychologically related. The Dyadic Adjustment Scale (DAS) (Spanier, 1976) was included as a concurrent measure of marital and sexual functioning since the CARES contains 26 items related to marital and sexual functioning. The Karnofsky Performance Status score (KPS) (Karnofsky & Burchenal, 1949; Schag, Heinrich, & Ganz, 1984) was included as a concurrent measure of physical functioning since the CARES has many items related to the impact of the disease and its treatment on physical functioning. Patients also rated their quality of life on a 10 centimeter Visual Analogue Scale (Gough, 1983) as a global indicator of their functioning. Two ratings were made, one a retrospective rating of the patient's quality of life before cancer (QOL-B) and one current rating of the quality of life since cancer (QOL-A). This method of assessment has been used in other research (Heinrich & Schag, 1985) and appears to be an accurate reflection of patients' quality of life before and after cancer.

Prior to analyses, a table was constructed with the six summary scales (CARES, Physical, Psychosocial, Medical Interaction, Sexual and Marital) and the five validity measures (Quality of Life Before and After Cancer, SCL-90, KPS, and DAS). The table was then completed with two levels of prediction for each pair of scores. The first level of prediction considered whether a correlation should exist or not between the two scores. The second level predicted the direction of the correlation for those scores in which a moderate correlation was expected. In summary, the CARES was predicted to have minimal relationship with QOL-B, to have a negative relationship with QOL-A, to have a positive relationship with the SCL-90, to have a negative relationship with KPS and to have a negative relationship with the DAS for the Marital, Sexual and Summary CARES scores. Pearson Product Moment Correlations were then computed and the pattern was compared to the predicted pattern. The correlations are presented in the table below.

Correlations of CARES Summary Scales and Validity Measures

CARES Scales	QOL-B	QOL-A	SCL-90	KPS	DAS
CARES	-.13	-.54****	.76****	-.46****	-.19*
Physical	.00	-.55****	.61****	-.64****	-.04
Psychosocial	-.14	-.50****	.74****	-.42****	-.06
Medical	-.05	-.27***	.49****	-.27***	-.06
Marital	.02	-.27**	.29***	-.17	-.57****
Sexual	-.06	-.15*	.28***	.07	-.16

Note. N=120 for all variable except Marital and DAS in which N=86.

**** $p < .0001$

*** $p < .007$

** $p < .01$

* $p < .09$

The correlations for the validity measures and the CARES' scales were in the appropriate directions. The SCL-90 showed a positive and strong relationship with the CARES Global score and the other five summary scale scores. The strongest relationships were between the Physical and Psychological summary scales. The KPS was negatively related to the CARES which means that as functional performance status declined, the number of problems on the CARES, primarily on the physical domain, increased. The DAS was most strongly related to the Marital scale. Contrary to prediction it was not significantly related to the Sexual scale. This is best explained by reviewing the instrument's items about sex. The DAS has only two questions about sexuality and they address the agreement between partners about having sex. The CARES Sexual scale addresses interest, sexual performance and sexual dysfunction and includes 8 items. The pattern of the correlations can also be viewed as preliminary evidence of discriminant and convergent validity of the CARES. The correlations that are strongest are in the areas expected. There is no relationship between the CARES, Physical, Psychosocial, or Medical factors and the DAS.

Of particular importance, was the relationship between the CARES and the two measures of quality of life. The CARES was conceptualized as an assessment tool that would document cancer-specific problems and needs. It is presumed that patients' quality of life ratings are affected by the frequency and severity of problems and that a positive correlation would be found between these variables. This, of course, was shown in the data. In addition, because the CARES is supposed to reflect events following the diagnosis of cancer, a strong correlation was not expected between quality of life before cancer and current cancer-related problems. The lack of relationship between the CARES and patient's ratings of quality of life before cancer supports this hypothesis also. The pattern of these two correlations provides preliminary evidence that the CARES is measuring what it purports to measure. The correlation between the CARES and quality of life after cancer has important implications for the use of the CARES. Quality of life is becoming a central issue in the area of cancer as new treatments are evaluated (Schipper & Levitt, 1985). The CARES can be used in clinical trials as a quality of life measure, but, in contrast to other instruments, it will provide very specific behavioral components to quality of life for which interventions may be instituted.

Sensitivity of CARES in Detecting Problems

In the first study (Schag et al., 1983) 22 patients were interviewed after they had completed the first version of the CARES. The interview assessed 21 problem areas. The CARES was then collapsed into these same areas. If patients endorsed one or more of the problems, then they were considered to have a problem in the area. A crosstable was constructed with the data from the interview and the CARES for each problem area to determine the amount of agreement in the two assessment methods.

Overall agreement between the two methods was good (mean rating for all categories = 75 percent). Accounting for the 25 percent of disagreements, 19 percent represent problems identified by the CARES but not by the interviewer, and 6 percent represented problems identified by the interviewer but not by the CARES. The interview was more sensitive in one area: side effects from treatment (other than chemotherapy) whereas the CARES was more sensitive in seven: pain, changes in physical appearance (body image and clothing), relationships with family and friends, employment, significant relationships, activity, and control in medical situations.

A second study was conducted with 24 patients in which cancer patients completed the expanded CARES and were also interviewed in detail about their experiences using a comprehensive needs assessment interview (NAI) designed by a medical oncologist, a social worker, and a psychologist (Ganz, Rofessart, Polinsky, Schag, & Heinrich, 1986). The interviewers had no knowledge of the patients' ratings on the CARES.

The CARES subscales were scored and parallel subscales were created for the interview by grouping items from the NAI with similar content. The subscales of the two instruments had an overall rate of agreement of 72 percent, ranging from a rate for chemotherapy problems of 90 percent to a rate for weight maintenance and for anxiety in medical situations of 54.2 percent each. In general, the rate of agreement was higher for subscales related to physical and treatment-related problems such as chemotherapy, pain, and functional health status, although the amount of agreement for the psychological distress subscales also was high. As the rate of agreement declined, the CARES appeared to be more sensitive than the NAI in detecting problems in areas such as compliance, communication with partner, communication with friends and relatives, interactions with friends and relatives, affectionate behavior with partner, anxiety in medical situations, and weight maintenance. Overall, for these 12 subscales, the CARES detected a problem area not identified by the NAI, on the average, in 20.8 percent of the patients, whereas the NAI, on the average detected additional problems areas in 7 percent of the patients. In the nine subscales responded to by only a few patients, the same pattern of agreement prevailed.

In this study the authors concluded that the CARES has several advantages over an interview, it is more sensitive in identifying specific problems, is comprehensive and systematically screens important areas, it is acceptable to patients, requires only a short time to complete, and that when individuals are unwilling to admit they have problems in a face-to-face interview, they were often willing to acknowledge them on the written instrument. The benefits of the interview were the establishment of rapport, the greater understanding of the patients background and current living situations, the determination of the degree to which the problems are cancer-related, and the richer exploration of a problem area.

A third, more extensive study also replicated the sensitivity of the CARES in detecting problems (Heinrich, Schag, Aadland, & Ganz, unpublished manuscript). Sixty-four patients completed the CARES and were also interviewed using a slightly modified version of the NAI described above. The interviews were taped and two independent professionals with extensive training in the area of the psychosocial impact of cancer reviewed the interviews. Next the CARES was completed separately by each rater from the information obtained in the interview. The two professionals then discussed each item and made a final rating of their combined judgment. In addition, they listed problems that they felt were not covered by the CARES. The expert rated CARES was then compared with the patient completed CARES for agreements and disagreements.

As in the previous studies, there was significant agreement on the presence or absence and the severity of rehabilitation problems. Sixty-nine percent of the time there was complete agreement between the patient-completed CARES and the expert-rated CARES on the presence of problems. Subsequent analyses of when the patient-rated CARES differed from the expert-rated CARES, indicated that the expert raters had insufficient information, or had missed the problem all together.

All three studies support the same findings. The CARES is sensitive in detecting problems and is often more sensitive than a detailed clinical interview. The implications for these findings support the clinical uses of the instrument as a preliminary assessment procedure, followed by a focused and brief interview.

Acceptability to Patients

In the first study (Schag et al. 1983), 22 patients were interviewed about their perceptions of the first version of the CARES. On the average, the instrument required 18 minutes to complete (SD = 8.39; range, 10-45 minutes); 20 of the 22 patients completed it in 25 minutes. Twenty-one patients said the instructions and most of the items were easy to understand and rate. Twenty said that even though they had not experienced all the problems, the statements reflected the experiences of cancer patients. All found the questions acceptable.

In the study of 64 patients who completed the CARES and underwent a comprehensive interview (NAI) to identify rehabilitation problems, the post-administration interview revealed that on average it took 20 minutes to complete the CARES (range 10 minutes to 34 minutes) while the comprehensive interview took on average 48 minutes (range 27 to 77 minutes) [Heinrich, Schag, Aadland & Ganz, submitted for publication]. Ninety-two percent of the patients thought the questions on the CARES reflected the day-to-day problems of cancer patients. Eighty-four of the patients had no difficulty understanding the instructions on how to complete the CARES, 78% had no difficulty understanding the questions and 97% found no questions offensive. All these results support the previous study's conclusion that the CARES is acceptable to cancer patients in evaluating their rehabilitation needs.

PART III. Development of Norms

Description of Sample

Cancer patients from a variety of hospitals, clinics, Veterans Administrations Medical Centers, and private physicians participated in the study to develop normative standards for the CARES. One-thousand-forty-seven outpatients from these medical facilities contributed data. The normative scores are based on six sub groupings of the original sample. These normative samples include,

1. All Prostate Cancer Patients,
2. All Breast Cancer Patients,
3. All Male Non-Prostate Cancer Patients,
4. All Female Non-Breast Cancer Patients,
5. All Male Cancer Patients and
6. All Female Cancer Patients.

Sample 5 combines samples 1 and 2 and sample 6 combines samples 3 and 4. The breast and prostate norms were created because they represent two unique populations. The disease is confounded with sex and the samples are quite different with regard to age and disease status. The demographic characteristics of each of these samples are presented below so that comparisons can be made between the samples and individual patients. When selecting a set of norms to compare individual patients, care should be taken in choosing the one which includes similar patients.

Demographic Variables for Six Normative Samples

	Other ^a Male	Other ^a Female	All Male	All Female	Prostate	Breast
AGE						
Under 50	2	38	15	20	9	28
50 to 69	53	52	65	58	60	55
Over 70	46	11	21	22	31	17
WORKING						
Yes	29	33	32	21	30	26
No	71	67	68	79	70	74
ETHNICITY						
White	88	82	86	87	86	85
Black	7	9	7	6	8	8
Hispanic	4	3	3	3	4	3
Other	1	6	4	4	1	3
MARITAL STATUS						
Single	5	13	10	13	8	13
Married	77	57	73	51	74	53
Divorced	10	15	11	13	11	14
Widowed	7	14	5	21	6	18
Living Tog	1	1	2	2	1	2
EDUCATION						
Graduate	11	17	10	6	10	11
College	17	26	16	13	16	19
Partial Col	27	35	28	36	28	35
High School	23	16	25	34	25	26
Partial HS	10	4	11	6	10	5
Junior High	8	1	8	4	8	3
< 7 years	4	1	3	1	3	1
OCCUPATION						
1	13	3	15	3	15	3
2	19	27	15	17	16	21
3	25	12	22	20	23	16
4	9	28	11	21	10	24
5	20	2	19	1	19	2
6	12	11	11	8	11	9
7	2	15	6	25	4	20
CHILDREN						
Yes	82	80	84	78	83	79
No	18	20	16	22	17	21

^a Other refers to all patients of that sex with cancers other than prostate or breast.

Medical Variables For Six Normative Samples						
	Other ^a Male	Other ^a Female	All Male	All Female	Prostate	Breast
METASTATIC DISEASE						
Yes	42	13	36	32	38	23
No	58	87	64	68	62	77
CARE STATUS						
Follow-up	39	15	36	41	37	29
Adjuvant	2	29	4	1	3	13
Local	18	43	24	27	22	34
Widespread	42	13	36	32	38	23
CHEMOTHERAPY						
Yes	10	23	38	30	26	27
No	90	77	62	70	74	73
RADIATION THERAPY						
Yes	4	10	7	8	6	8
No	96	90	93	92	94	92
ENDOCRINE THERAPY						
Yes	14	20	1	1	6	9
No	86	80	99	99	94	91
ABLATIVE SURGERY						
Yes	30	1	0	0	12	1
No	70	99	100	100	88	99
SURGICAL PROCEDURE						
None	20	0	13	17	16	10
One	51	90	69	60	61	73
>Two	29	10	18	23	23	17
SURGICAL HISTORY						
None	20	0	13	17	16	10
Biopsy only	18	1	14	19	16	11
Complete res	28	6	53	49	43	30
Incom Res	33	0	18	14	24	8
Radical mast	0	4	0	0	0	2
Modified mast	0	65	0	0	0	29
Lumpectomy	0	24	0	0	0	11
Other	1	0	1	0	1	0
PREVIOUS CANCER						
Yes	12	11	10	8	11	10
No	88	89	90	92	89	90
KPS						
50	1	0	1	3	1	2
60	2	1	3	5	3	4
70	11	7	15	21	13	17
80	23	33	26	23	25	26
90	35	47	32	24	33	31
100	28	12	22	25	25	21

^a Other refers to all patients of that sex with cancers other than prostate or breast.

Descriptive Statistics for Continuous Medical and Demographic Variables For Six Normative Samples

Subgroup & Variable	N	Minimum	Maximum	Mean	Std Dev
Prostate					
age	283	43.00	90.00	69.07	7.42
date primary CA dx	283	1.00	295.00	41.63	42.25
care status length	283	1.00	293.00	25.66	30.95
KPS	282	50.00	100.00	87.41	11.00
Breast					
age	178	27.00	86.00	54.13	12.28
date primary CA dx	178	1.00	200.00	14.66	31.95
care status length	177	1.00	149.00	8.78	20.12
KPS	83	60.00	100.00	86.14	8.39
Other Male					
age	418	21.00	99.00	60.64	12.48
date primary CA dx	418	1.00	199.00	25.68	32.29
care status length	418	1.00	195.00	18.13	25.87
KPS	393	50.00	100.00	85.17	11.47
Other Female					
age	224	21.00	87.00	58.97	13.53
date primary CA dx	224	1.00	144.00	25.96	28.09
care status length	223	1.00	90.00	15.15	17.53
KPS	199	50.00	100.00	83.62	13.18
All Males					
age	701	21.00	99.00	64.05	11.49
date primary CA dx	701	1.00	295.00	32.12	37.44
care status length	701	1.00	293.00	21.17	28.26
KPS	675	50.00	100.00	86.10	11.33
All Females					
age	402	21.00	87.00	56.83	13.20
date primary CA dx	402	1.00	200.00	20.95	30.35
care status length	400	1.00	149.00	12.33	18.96
KPS	282	50.00	100.00	84.36	12.01

Below are tables presenting the Mean Standard Deviations and Ranges for the six samples on the CARES scores.

Descriptive Statistics for Normative Sample: All Prostate Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	283	0.00	3.50	1.77	0.56
Physical	283	0.00	3.80	1.62	0.80
Psychosocial	283	0.00	3.44	1.43	0.66
Medical Inter	283	0.00	4.00	0.90	1.03
Sexual	283	0.00	4.00	1.99	1.42
Marital	231	0.00	4.00	1.02	0.99
GLOBAL					
CARES	283	0.00	2.48	0.50	0.39
Physical	283	0.00	2.88	0.60	0.57
Psychosocial	283	0.00	2.49	0.47	0.45
Medical	283	0.00	3.64	0.33	0.51
Sexual	283	0.00	4.00	1.22	1.10
Marital	231	0.00	3.56	0.33	0.48
# OF PROBLEMS ENDORSED					
CARES	283	0.00	78.00	29.38	17.73
Physical	283	0.00	23.00	7.82	5.55
Psychosocial	283	0.00	34.00	11.01	8.06
Medical Inter	283	0.00	11.00	2.14	2.71
Sexual	283	0.00	8.00	2.93	2.39
Marital	231	0.00	17.00	3.63	4.09

Descriptive Statistics for Normative Sample: All Breast Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	178	1.00	3.62	1.74	0.53
Physical	178	0.00	4.00	1.62	0.71
Psychosocial	178	0.00	4.00	1.67	0.65
Medical Inter	178	0.00	4.00	0.92	1.00
Sexual	178	0.00	4.00	1.47	1.20
Marital	119	0.00	4.00	1.34	1.01
GLOBAL SCORE					
CARES	178	0.03	2.52	0.64	0.45
Physical	178	0.00	3.31	0.67	0.59
Psychosocial	178	0.00	2.87	0.77	0.55
Medical Inter	178	0.00	3.09	0.32	0.50
Sexual	178	0.00	4.00	0.82	0.93
Marital	119	0.00	3.06	0.48	0.57
# OF PROBLEMS ENDORSED					
CARES	178	2.00	91.00	38.70	19.70
Physical	178	0.00	25.00	9.39	6.06
Psychosocial	178	0.00	39.00	17.44	8.43
Medical Inter	178	0.00	11.00	2.15	2.82
Sexual	178	0.00	8.00	2.47	2.42
Marital	119	0.00	15.00	4.66	4.19

Descriptive Statistics for Normative Sample: All Male Non-Prostate Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	418	0.00	3.62	1.81	0.56
Physical	418	0.00	4.00	1.79	0.78
Psychosocial	418	0.00	3.60	1.56	0.66
Medical Inter	418	0.00	4.00	0.91	1.01
Sexual	418	0.00	4.00	1.69	1.29
Marital	330	0.00	4.00	1.12	0.90
GLOBAL SCORE					
CARES	418	0.00	2.48	0.61	0.45
Physical	418	0.00	3.19	0.80	0.66
Psychosocial	418	0.00	2.85	0.57	0.51
Medical Inter	418	0.00	3.45	0.38	0.55
Sexual	418	0.00	4.00	1.04	1.01
Marital	330	0.00	3.50	0.37	0.55
# OF PROBLEMS ENDORSED					
CARES	418	0.00	100.00	35.88	21.66
Physical	418	0.00	25.00	10.02	6.36
Psychosocial	418	0.00	38.00	13.20	9.17
Medical Inter	418	0.00	11.00	2.49	3.10
Sexual	418	0.00	8.00	2.88	2.44
Marital	330	0.00	17.00	3.87	4.24

Descriptive Statistics for Normative Sample: All Female Non-Breast Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	224	0.00	3.89	1.92	0.62
Physical	224	0.00	3.86	1.87	0.82
Psychosocial	224	0.00	4.00	1.74	0.74
Medical Inter	224	0.00	4.00	1.01	1.01
Sexual	224	0.00	4.00	1.64	1.44
Marital	132	0.00	4.00	1.32	1.05
GLOBAL SCORE					
CARES	224	0.00	2.76	0.74	0.55
Physical	224	0.00	3.27	0.91	0.76
Psychosocial	224	0.00	3.31	0.78	0.66
Medical Inter	224	0.00	3.36	0.43	0.64
Sexual	224	0.00	4.00	0.94	1.03
Marital	132	0.00	3.39	0.57	0.72
# OF PROBLEMS ENDORSED					
CARES	224	0.00	93.00	39.49	21.82
Physical	224	0.00	25.00	10.63	6.43
Psychosocial	224	0.00	40.00	16.12	9.38
Medical Inter	224	0.00	11.00	2.55	3.08
Sexual	224	0.00	8.00	2.40	2.51
Marital	132	0.00	17.00	5.08	4.61

Descriptive Statistics for Normative Sample: All Male Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	701	0.00	3.62	1.80	0.56
Physical	701	0.00	4.00	1.72	0.79
Psychosocial	701	0.00	3.60	1.51	0.66
Medical Inter	701	0.00	4.00	0.90	1.02
Sexual	701	0.00	4.00	1.81	1.35
Marital	561	0.00	4.00	1.08	0.94
GLOBAL SCORE					
CARES	701	0.00	2.48	0.56	0.43
Physical	701	0.00	3.19	0.72	0.63
Psychosocial	701	0.00	2.85	0.53	0.49
Medical Inter	701	0.00	3.64	0.36	0.54
Sexual	701	0.00	4.00	1.11	1.05
Marital	561	0.00	3.56	0.36	0.52
# OF PROBLEMS ENDORSED					
CARES	701	0.00	100.00	33.26	20.40
Physical	701	0.00	25.00	9.13	6.14
Psychosocial	701	0.00	38.00	12.32	8.80
Medical Inter	701	0.00	11.00	2.35	2.95
Sexual	701	0.00	8.00	2.90	2.42
Marital	561	0.00	17.00	3.77	4.18

Descriptive Statistics for Normative Sample: All Female Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES	402	0.00	3.89	1.84	0.59
Physical	402	0.00	4.00	1.76	0.78
Psychosocial	402	0.00	4.00	1.70	0.70
Medical Inter	402	0.00	4.00	0.97	1.00
Sexual	402	0.00	4.00	1.57	1.34
Marital	251	0.00	4.00	1.33	1.03
GLOBAL SCORE					
CARES	402	0.00	2.76	0.70	0.51
Physical	402	0.00	3.31	0.80	0.70
Psychosocial	402	0.00	3.31	0.78	0.62
Medical Inter	402	0.00	3.36	0.38	0.58
Sexual	402	0.00	4.00	0.88	0.99
Marital	251	0.00	3.39	0.53	0.65
# OF PROBLEMS ENDORSED					
CARES	402	0.00	93.00	39.14	20.89
Physical	402	0.00	25.00	10.08	6.29
Psychosocial	402	0.00	40.00	16.70	8.99
Medical Inter	402	0.00	11.00	2.38	2.97
Sexual	402	0.00	8.00	2.43	2.46
Marital	251	0.00	17.00	4.88	4.41

Creation of Normative Scores and Tables

For each subsample, frequency distributions were created and normalized standard z scores were calculated for each raw score. The z scores were transformed to T scores by adding or subtracting 50. Not all possible raw scores existed within each subsample distribution. The tables in Appendix C present the T scores for the six summary scales (CARES, Physical, Psychosocial, Medical Interaction, Sexual, and Marital). Three T scores are presented for each summary scale, the Global score (Summation divided by number of potential problems), the Average Severity Rating (Summation divided by the number of problems endorsed with a rating greater than zero), and the Number of Problems Endorsed (a count of the problems endorsed with a rating greater than zero). The tables with the Global Scores and Average Severity Ratings were created using .04 intervals. If an interval was not included in the sample, then interpolation was used. Interpolation was less frequent for the CARES scores, Physical, Psychosocial and Marital scales. The Sexual and Medical Interaction scales required more interpolation. It was particularly true for the Sexual Scales because there were a large number of patients who had no problems and a disproportionately large number of patients who had severe problems (i.e., endorsed the questions with all 4's). It would appear that these problems tend to be somewhat more dichotomous than the others. When they exist, they are severe. The computerized scoring program uses interpolated scores for any score that did not exist within the sample.

PART IV. CARES-SF: The Short Form

Development

A short form of the CARES has been developed and is currently being evaluated. It represents a much shorter version, N=59 items compared to 139. It was primarily developed for use in research protocols to assess problem areas and more specific components of quality of life. It can, however, be used as a clinical instrument as well. All items contained on the short form are included in the original CARES. The items were selected using a variety of data that had been collected on the long form. Inter-item correlations were considered as were the alpha coefficients for the individual subscales and higher-order factors. In addition, four professionals (a medical oncologist, a psychologist, a social worker, and a psychiatrist) who work with cancer patients on a regular basis and were familiar with using the long form with clinical populations reviewed the instrument. They selected the items that they perceived as most important when evaluating patients and planning interventions. All other data were also reviewed and combined decisions were made. When questions arose between two or three items, the clinical significance in combination with frequency of occurrence in the heterogeneous sample of 479 patients were used. The item that captured the larger group of patients was often selected, when other factors were equal. The rationale behind this approach is that the CARES-SF will most likely be a screening instrument, and therefore, a broader net seemed more appropriate. The following table presents the relationship of the CARES-SF to the CARES.

Relationship of CARES-SF to CARES

	# items CARES	# Items CARES-SF	% On CARES-SF
PHYSICAL	26	10	42%
Ambulation	4	2	
Recreational Activities	4	1	
Activities of Daily Living	4	2	
Difficulty Working	2	1	
Pain	4	1	
Weight Loss	5	2	
Clothing	3	1	
PSYCHOSOCIAL	44	17	39%
Psychological Distress	6	3	
Worry	4	2	
Anxiety in Medical Situations	6	2	
Cognitive Problems	3	1	
Body Image	3	1	
At Work Concerns	5	3	
Difficulty Communicating with Friends/Relatives	7	2	
Friends/Relatives Difficulty Interacting	7	2	
Interaction with Children	3	1	
MEDICAL INTERACTION	11	4	36%
Problems Obtaining Information from Med Team	3	1	
Difficulty Communicating with Med Team	6	2	
Control of Medical Team	2	1	
MARITAL	18	6	33%
Communication with Partner	6	2	
Affection with Partner	4	1	
Interaction with Partner	4	1	
Overprotection by Partner	2	1	
Neglect of Care by Partner	2	1	
SEXUAL	8	3	38%
Sex Interest	4	2	
Sexual Dysfunction	4	1	
Miscellaneous Subscales and Items	32	19	60%
Chemotherapy Related Problems	9	5	
Radiation Related Problems	3	2	
Dating	5	2	
Compliance	4	1	
Economic Barriers	4	3	
ostomy	1	1	
bladder control	1	1	
frequent diarrhea	1	1	
prosthesis	1	1	
too much weight gain	1	1	
diagnostic procedures painful	1	0	
transportation	1	1	

Administration

The CARES-SF is administered in the same way as the CARES.

Scoring

Scoring the CARES-SF is done in the same manner as the CARES. Individual subscales are not relevant since often times, only one or two items were selected from a subscale. The same five summary scales derived from the higher-order factor analysis and the overall CARES are used in scoring the CARES-SF. Presented below are the five summary scales and the item numbers associated with each as well as the comparable item numbers on the CARES. The overall CARES-SF scores include all items.

Items Included on CARES-SF from CARES		
	CARES-SF	CARES
Physical	1-10	1 4 6 7 12 13 15 19 20 25
Medical Interaction	11-14	28 30 34 36
Psychosocial	15-27 37 38 39 40	40 41 46 47 54 55 57 60 63 66 69 71 72 90 93 95 96
Sexual	28 29 42	74 76 9
Marital	43-48	103 108 109 113 118 120
Miscellaneous	30-36 41 49-59	81-85 87 88 97 121 124 126 127 130 131 133 136 137 138 139

When the Global CARES-SF is calculated the same procedures used in the original CARES applies. Specifically, this means that the number of potential problems must be counted based on whether they have had the opportunity for the problems to occur. The same ten categories apply which include presence of children (#37), currently employed (#38-40), looking for work (#41), attempted intercourse since cancer (#42), married (#43-48), single (#50), chemotherapy treatments (#51-55), radiation therapy treatments (#56-57), ostomy (#58) and prosthesis (#59). In addition, the Psychosocial, Marital and Sexual summary scales must take into account those items that apply to select individuals.

A sample score sheet and profile is presented in Appendix B.

Comparability and Internal Consistency of CARES-SF and CARES

The comparability of the CARES and CARES-SF is currently under investigation. However, in samples already in existence, correlations have been computed between the two CARES on the six summary scales using the Global scores. The first sample is a group of newly diagnosed breast and colon patients who are participating in a study to evaluate patients' rehabilitation needs. The second sample are the original 1047 patients of the normative sample. The breakdowns by site are from the normative population.

Correlation between CARES and CARES-SF			
	Breast Colon N=108	All Norm N=1047	Breast Norm N=114
	r	r	r
Global CARES	.90	.98	.98
Physical	.85	.97	.97
Psychosocial	.80	.97	.97
Medical	.95	.95	.95
Marital	.88	.95	.96
Sexual	.86	.90	.93

Internal Consistency of Scales

The internal consistency of the scales has been evaluated in the two sample of patients used for evaluation of psychometric properties. The alpha coefficients are presented for both the CARES and CARES-SF for comparison. It is not surprising that some of the alpha coefficients are low. This is primarily because the scales have very few items and the items that were selected were chosen because they represented different types of problems within a category, thus providing a broader screening instrument.

Alpha Coefficients for CARES and CARES-SF Summary Scales

	CARES Factor N=479	CARES-SF	CARES Norm N=1047	CARES-SF	CARES Breast N=114	CARES-SF
Physical	.92	.83	.92	.85	.92	.84
Psychosocial	.94	.85	.94	.85	.92	.82
Medical	.87	.67	.87	.67	.85	.60
* Marital	.92	.72	.92	.72	.90	.61
** Sexual	.88	.73	.82	.67	.88	.78

The number of subjects who are married and who have attempted sex since cancer are less than the total sample size. The N's for each variable and group are listed respectively.

*Married	765	336	73
**Attempted Sex	548	272	66

Test-Retest Reliability

The average agreement with regard to identification of problems as present or absent was re-computed for the CARES-SF. As can be seen the values are similar to those found in the larger scale, suggesting that the CARES-SF is relatively stable over a short period of time.

Average Percent Agreement on CARES-SF from Test-Retest Sample

	% N=120
CARES	86
Physical	86
Psychosocial	86
Medical	86
* Marital	85
** Sexual	81

The number of subjects who are married and who have attempted sex since cancer are less than the total sample size. The N's for each variable and group are listed respectively.

* Married	N's =	765	336	73
** Attempted Sex	N's =	548	272	66

Intercorrelations of Factors

In the normative sample, a correlation matrix was constructed for the summary scale scores and is presented in the following table:

Intercorrelations of CARES-SF Summary Scales

	CARES-SF	PHYSICAL	PSYCHO- SOCIAL	MEDICAL	MARITAL
Physical	.81				
Psychosocial	.90	.61			
Medical	.59	.34	.54		
Marital	.44	.24	.37	.26	
Sexual	.52	.40	.38	.16	.26

Descriptive Statistics for Normative Sample: All Breast Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	178	0.00	3.60	1.72	0.57
Physical	178	0.00	4.00	1.57	0.81
Psychosocial	178	0.00	3.71	1.63	0.69
Medical Inter	178	0.00	4.00	0.88	1.05
Sexual	178	0.00	4.00	1.41	1.25
Marital	119	0.00	4.00	1.18	1.07
GLOBAL SCORE					
CARES-SF	178	0.00	2.77	0.70	0.49
Physical	178	0.00	3.50	0.79	0.68
Psychosocial	178	0.00	3.50	0.82	0.62
Medical Inter	178	0.00	3.50	0.40	0.58
Sexual	178	0.00	4.00	1.05	1.13
Marital	119	0.00	2.67	0.47	0.56
# OF PROBLEMS ENDORSED					
CARES-SF	178	0.00	38.00	17.28	8.54
Physical	178	0.00	10.00	4.28	2.62
Psychosocial	178	0.00	17.00	6.89	3.63
Medical Inter	178	0.00	4.00	0.97	1.17
Sexual	178	0.00	3.00	1.28	1.02
Marital	119	0.00	5.00	1.56	1.43

Descriptive Statistics for Normative Sample: All Male Non-Prostate Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	418	0.00	4.00	1.82	0.64
Physical	418	0.00	4.00	1.76	0.87
Psychosocial	418	0.00	4.00	1.54	0.76
Medical Inter	418	0.00	4.00	0.85	1.05
Sexual	418	0.00	4.00	1.63	1.34
Marital	330	0.00	4.00	0.96	1.02
GLOBAL SCORE					
CARES-SF	418	0.00	2.51	0.68	0.50
Physical	418	0.00	3.60	0.93	0.77
Psychosocial	418	0.00	3.14	0.66	0.58
Medical Inter	418	0.00	4.00	0.45	0.65
Sexual	418	0.00	4.00	1.20	1.15
Marital	330	0.00	3.33	0.37	0.56
# OF PROBLEMS ENDORSED					
CARES-SF	418	0.00	42.00	16.11	9.37
Physical	418	0.00	10.00	4.45	2.78
Psychosocial	418	0.00	15.00	5.50	3.74
Medical Inter	418	0.00	4.00	1.04	1.27
Sexual	418	0.00	3.00	1.34	1.04
Marital	330	0.00	6.00	1.28	1.48

Validity CARES-SF

The same data collected in the second study evaluating the validity of the CARES (Schag et al., unpublished manuscript), was re-analyzed to provide evidence of validity of the CARES-SF. As presented in the table below, the pattern of correlations is similar to the CARES and thus suggests that the CARES-SF measures what it purports to measure.

Correlations of CARES-SF and Validity Measures

Summary Scales	QOL-B	QOL-A	SCL-90	KPS	DAS
CARES-SF	-.09	-.55****	.74****	-.50****	-.16
Physical	-.02	-.52****	.60****	-.68****	-.03
Psychosocial	-.10	-.53****	.70****	-.46****	-.08
Medical	-.04	-.29***	.47****	-.27***	-.06
Marital	.08	-.31***	.32***	-.18	-.56****
Sexual	-.12	-.18*	.26***	-.01	-.19

Note. N=120 for all variable except Marital and DAS in which N=86.

**** $p < .0001$

*** $p < .007$

** $p < .01$

* $p < .05$

Normative Data on CARES-SF

The normative scores were created for the CARES-SF using the same normative samples described for the CARES. The tables with these normative scores are presented in Appendix D. Below is a table presenting the Mean Standard Deviations and Ranges for the six samples on the CARES-SF.

Descriptive Statistics for Normative Sample: All Prostate Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	283	0.00	3.72	1.73	0.60
Physical	283	0.00	4.00	1.54	0.86
Psychosocial	283	0.00	4.00	1.42	0.77
Medical Inter	283	0.00	4.00	0.82	1.05
Sexual	283	0.00	4.00	1.88	1.45
Marital	231	0.00	4.00	0.79	0.98
GLOBAL SCORE					
CARES-SF	283	0.00	2.60	0.54	0.43
Physical	283	0.00	3.50	0.66	0.66
Psychosocial	283	0.00	2.57	0.54	0.52
Medical Inter	283	0.00	3.75	0.37	0.57
Sexual	283	0.00	4.00	1.24	1.14
Marital	231	0.00	3.00	0.30	0.47
# OF PROBLEMS ENDORSED					
CARES-SF	283	0.00	33.00	12.78	7.59
Physical	283	0.00	10.00	3.39	2.45
Psychosocial	283	0.00	14.00	4.56	3.29
Medical Inter	283	0.00	4.00	0.87	1.09
Sexual	283	0.00	3.00	1.23	0.95
Marital	231	0.00	5.00	1.12	1.40

Descriptive Statistics for Normative Sample: All Female Non-Breast Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	224	0.00	4.00	1.93	0.68
Physical	224	0.00	3.70	1.83	0.90
Psychosocial	224	0.00	4.00	1.74	0.81
Medical Inter	224	0.00	4.00	0.90	1.02
Sexual	224	0.00	4.00	1.62	1.48
Marital	132	0.00	4.00	1.14	1.13
GLOBAL SCORE					
CARES-SF	224	0.00	2.61	0.81	0.58
Physical	224	0.00	3.70	1.05	0.87
Psychosocial	224	0.00	3.57	0.86	0.73
Medical Inter	224	0.00	3.50	0.47	0.70
Sexual	224	0.00	4.00	1.22	1.26
Marital	132	0.00	3.33	0.53	0.71
# OF PROBLEMS ENDORSED					
CARES-SF	224	0.00	40.00	17.41	9.27
Physical	224	0.00	10.00	4.79	2.85
Psychosocial	224	0.00	16.00	6.36	3.75
Medical Inter	224	0.00	4.00	1.04	1.25
Sexual	224	0.00	3.00	1.23	1.06
Marital	132	0.00	5.00	1.59	1.61

Descriptive Statistics for Normative Sample: All Male Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	701	0.00	4.00	1.78	0.63
Physical	701	0.00	4.00	1.67	0.87
Psychosocial	701	0.00	4.00	1.49	0.76
Medical Inter	701	0.00	4.00	0.84	1.05
Sexual	701	0.00	4.00	1.73	1.39
Marital	561	0.00	4.00	0.89	1.01
GLOBAL SCORE					
CARES-SF	701	0.00	2.60	0.63	0.48
Physical	701	0.00	3.60	0.82	0.74
Psychosocial	701	0.00	3.14	0.61	0.56
Medical Inter	701	0.00	4.00	0.42	0.62
Sexual	701	0.00	4.00	1.22	1.14
Marital	561	0.00	3.33	0.34	0.52
# OF PROBLEMS ENDORSED					
CARES-SF	701	0.00	42.00	14.76	8.84
Physical	701	0.00	10.00	4.02	2.70
Psychosocial	701	0.00	15.00	5.12	3.59
Medical Inter	701	0.00	4.00	0.97	1.21
Sexual	701	0.00	3.00	1.30	1.00
Marital	561	0.00	6.00	1.21	1.45

Descriptive Statistics for Normative Sample: All Female Cancer Patients

Variable	N	Minimum	Maximum	Mean	Std Dev
AVERAGE SEVERITY					
CARES-SF	402	0.00	4.00	1.83	0.64
Physical	402	0.00	4.00	1.72	0.87
Psychosocial	402	0.00	4.00	1.69	0.76
Medical Inter	402	0.00	4.00	0.89	1.03
Sexual	402	0.00	4.00	1.52	1.38
Marital	251	0.00	4.00	1.16	1.10
GLOBAL SCORE					
CARES-SF	402	0.00	2.77	0.76	0.55
Physical	402	0.00	3.70	0.94	0.80
Psychosocial	402	0.00	3.57	0.84	0.68
Medical Inter	402	0.00	3.50	0.44	0.65
Sexual	402	0.00	4.00	1.15	1.20
Marital	251	0.00	3.33	0.50	0.64
# OF PROBLEMS ENDORSED					
CARES-SF	402	0.00	40.00	17.35	8.94
Physical	402	0.00	10.00	4.56	2.76
Psychosocial	402	0.00	17.00	6.59	3.70
Medical Inter	402	0.00	4.00	1.01	1.21
Sexual	402	0.00	3.00	1.25	1.04
Marital	251	0.00	5.00	1.58	1.52

PART V. Summary

In summary, the CARES represents a unique instrument with many uses and advantages. The CARES was designed for cancer patients, and has been shown to represent the kinds of problems that cancer patients face as they live with the disease on a daily basis. The research to date suggests that it is comprehensive, reliable and valid. The CARES provides a cost-efficient method of evaluating patients' needs because it requires very little professional time. Used in a clinical setting it can serve as an adjunct to comprehensive medical care. The CARES has important implications for research settings as well. It has a short form which can more easily be administered multiple times. It has summary scores which include the major areas of functioning which can allow for a better understanding of how various treatments can influence patients' day-to-day living and quality of life. The original CARES can also be used in a research setting if more detailed description is required. Finally, the technology of today has been used to make CARES even more useful by using computers to score, compare and generate a comprehensive summary of a patient's needs. The developers of CARES are committed to continuing our work on CARES and enhancing its effectiveness in understanding cancer patients' needs and improving their quality of life.

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Appendix A
Sample Score and Profile Sheet CARES

Cancer Rehabilitation Evaluation System (CARES): Patient Profile

Patient Information

Name: Helen Jones

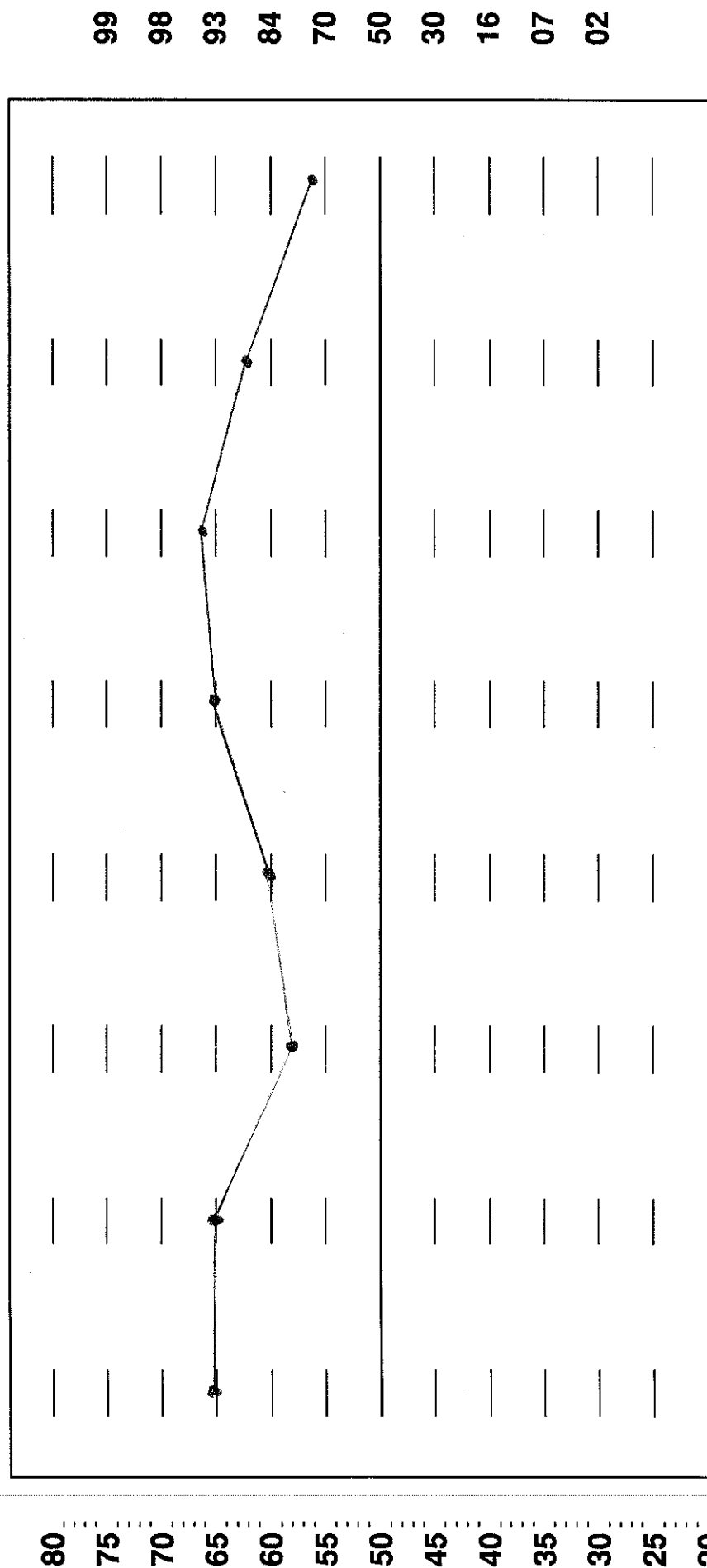
Date: 12/1/88

Please Circle Normative Sample Used:

- | | |
|---|---|
| 1. Female Breast Cancer Norm | 4. Male Prostate Cancer Norm |
| 2. Female Other than Breast Cancer Norm | 5. Male Other than Prostate Cancer Norm |
| 3. Female Combined Cancer Norm | 6. Male Combined Cancer Norm |

T-Score

% Rank



CARES Global Score	CARES # Prob Endorsed	CARES Aver Sever	PHYSICAL Global Score	PSYCHOSOCIAL Global Score	MEDICAL INTERACTION Global Score	MARITAL Global Score	SEXUAL Global Score
65	65	58	60	65	66	62	56
1.33	72	2.11	1.27	1.74	1.27	1.11	1.13

PHYSICAL**Ambulation**

- 1. diff bend or lift
 — 2. diff walk/move around
 — 3. diff do physical activ.
 1 4. reduction in energy

Activities of Daily Living

- 1 5. diff driving
 — 6. diff household chores
 — 7. diff bathe, brush groom
 — 8. diff prepare meals

Recreational Activities

- 3 9. no interest recreat activ
 2 10. not engage recreat activ
 2 11. not enough enjoyable activ
 2 12. diff planning activ

Weight Loss

- 13. cannot gain weight
 — 14. continue to lose weight
 1 15. food unappealing
 1 16. food tastes bad
 — 17. diff swallowing

Difficulty Working

- 1 18. cancer prevents work
 2 19. cancer interferes work

Pain

- 2 20. frequently has pain
 2 21. chronic pain scars/surgery
 1 22. pain not controlled medication
 3 23. pain controlled medication

Clothing

- 4 24. clothes not look good
 4 25. clothes not fit
 3 26. diff find clothes
 33 SUM 16 # (1-4) 26 # Potential

MEDICAL INTERACTION**Problems Obtaining Info from Medical Team**

- 1 27. medical team withholds info
 2 28. doctors don't explain what do
 2 29. nurses don't explain what do

Difficulty Communicating with Medical Team

- 1 30. diff ask doctors questions
 1 31. diff ask nurses questions
 1 32. diff express feelings MD/RN
 1 33. diff tell doctor new symptoms
 — 34. diff understand MD about cancer
 — 35. diff understand RN about cancer

Control of Medical Team

- 4 36. wants more control over MD
 4 37. wants more control over RN
 14 SUM 7 # (1-4) 11 # Potential

MARITAL*Communication with Partner**

- 1 103. diff talk feelings
 1 104. diff talk fears
 2 105. diff talk happen after death
 2 106. diff talk future
 1 107. diff talk cancer
 1 108. diff talk wills/financial matters

Affection with Partner

- 1 109. doesn't feel like embrace, etc
 — 110. partner no feel like embrace, etc.
 1 111. no interest in touch partner
 — 112. partner no interest in touch

Interaction with Partner

- 1 113. not get along as well usual
 1 114. upset with other more often
 3 115. so much time together, on nerves
 1 116. more distant than usual

Overprotection by Partner

- 117. partner not let do activ capable of
 — 118. partner provides too much care

Neglect of Care by Partner

- 2 119. partner takes too little care
 2 120. diff ask partner to take care
 20 SUM 14 # (1-4) 18 # Potential Circle

PSYCHOSOCIAL**Body Image**

- 1 38. embarrassed to show body
 1 39. uncomfor show scars
 2 40. uncomfor with body changes

Psychological Distress

- 3 41. frequently anxious
 3 42. frequently depressed
 4 43. frequently angry
 3 44. frequently upset
 4 45. frequently overwhelmed by cancer
 2 46. diff sleep

Cognitive Problems

- 2 47. diff concentrating
 3 48. diff remembering
 3 49. diff thinking clearly

Difficulty Communicat with Friends/Relatives

- 50. diff tell frnd/rel to come less often
 — 51. diff tell frnd/rel to leave when not well
 2 52. diff ask frnd/rel to do fun things
 — 53. don't know what to say to frnd/rel
 3 54. diff ask frnd/rel help
 — 55. diff tell frnd/rel about cancer
 — 56. diff ask frnd/rel to come more

Friends/Relatives Difficulty Interacting

- 1 57. frnd/rel say look well when not
 2 58. frnd/rel withhold information
 — 59. frnd/rel avoid talk cancer
 — 60. frnd/rel do not visit enough
 — 61. frnd/rel do not call enough
 1 62. frnd/rel uncomfor visiting
 1 63. frnd/rel diff talk about cancer

Anxiety in Medical Situations

- 64. uncomfor see patients get treat
 4 65. nervous going to hospital
 3 66. nervous wait to see doctor
 4 67. nervous wait for test results
 4 68. nervous have diagnostic tests
 4 69. nervous get blood drawn

Worry

- 3 70. worry whether treatments work
 3 71. worry whether cancer progress
 2 72. worry not able to care for self
 3 73. worry how family will manage

Interaction with Children

- 0 89. diff care for child/grandchild
 0 90. diff help children cope
 0 91. diff help children talk about illness

***At-Work Concerns**

- 92. diff talk boss about cancer
 — 93. diff talk people at work
 — 94. diff tell employer cannot do work
 — 95. diff ask time off for treatments
 — 96. worried about being fired

68 SUM 26 # (1-4) 44, 41, 39, 36
 # Potential Circle

SEXUAL**Sex Interest**

- 1 74. doesn't feel sex. attract
 — 75. thinks not sexually attractive to partner(s)
 1 76. not interested in having sex
 — 77. doesn't think partner(s) interested in sex

Sexual Dysfunction

- 3 99. frequency of sex decreased
 1 100. diff become sexually aroused
 — 101. diff with erection (males)
 — 101. diff lubrication (females)
 3 102. diff reach orgasm

9 SUM 5 # (1-4) 8, 4
 # Potential Circle

MISCELLANEOUS**Compliance**

- 78. doesn't show for MD appoint
 — 79. doesn't show for treatments
 — 80. doesn't take medication
 1 81. doesn't follow MD's instruct
 1 SUM 1 # (1-4) 4 # Potential

Economic Barriers

- 2 82. financial problems
 — 83. insurance problems
 — 97. diff find new job**
 — 98. employers no hire CA hist**
 2 SUM 1 # (1-4) 4 # Potential Circle

***Dating**

- 121. diff initiating dates
 — 122. diff meet dates
 — 123. afraid go places meet dates
 — 124. diff tell date about cancer
 — 125. afraid to initiate sex relation
 0 SUM 0 # (1-4) 5 # Potential Circle

***Chemotherapy-Related Problems**

- 126. nervous get chemo
 — 127. nauseated during/before chemo
 — 128. vomit during/before chemo
 — 129. sick when think about chemo
 — 130. nauseated after chemo
 — 131. vomit after chemo
 — 132. tired after chemo
 — 133. other side effects chemo
 — 134. lost hair/grow slow from chemo
 0 SUM 0 # (1-4) 9 # Potential Circle

***Radiation-Related Problems**

- 135. fatigued after rad
 — 136. nervous get rad
 — 137. nauseous/vomit after rad
 0 SUM 0 # (1-4) 3 # Potential Circle

***Ostomy**

- 138. problems ostomy care/maint.
 0 SUM 0 # (1-4) 1 # Potential Circle

***Prosthesis**

- 139. diff with prosthesis
 0 SUM 0 # (1-4) 1 # Potential Circle

Miscellaneous Items

- 84. diff with transport
 1 85. gain too much weight
 4 86. diagnostic proced painful
 — 87. frequent diarrhea
 — 88. poor bladder control
 5 SUM 2 # (1-4) 5 # Potential

SUM ALL 8 MISCELLANEOUS SUMS ABOVE

8 SUM 4 # (1-4) 12 # Potential

Global and Average Severity for CARES and 5 Subscales

Scale	SUM	#	#	AVE	GLOBAL
		Endor	Poten	Sever	
Physical	33	16	26	2.06	1.27
Psychoso	68	26	39	2.62	1.74
Med Int	14	7	11	2.00	1.27
Marital	20	14	18	1.43	1.11
Sexual	9	5	8	1.80	1.13
Miscell	8	4	12	—	—
CARES	152	72	114	2.11	1.33

* Items may not apply to all patients

Appendix B
Sample Score and Profile Sheet CARES-SF

Cancer Rehabilitation Evaluation System - Short Form (CARES - SF): Patient Profile

Patient Information

Name: Helen Smith

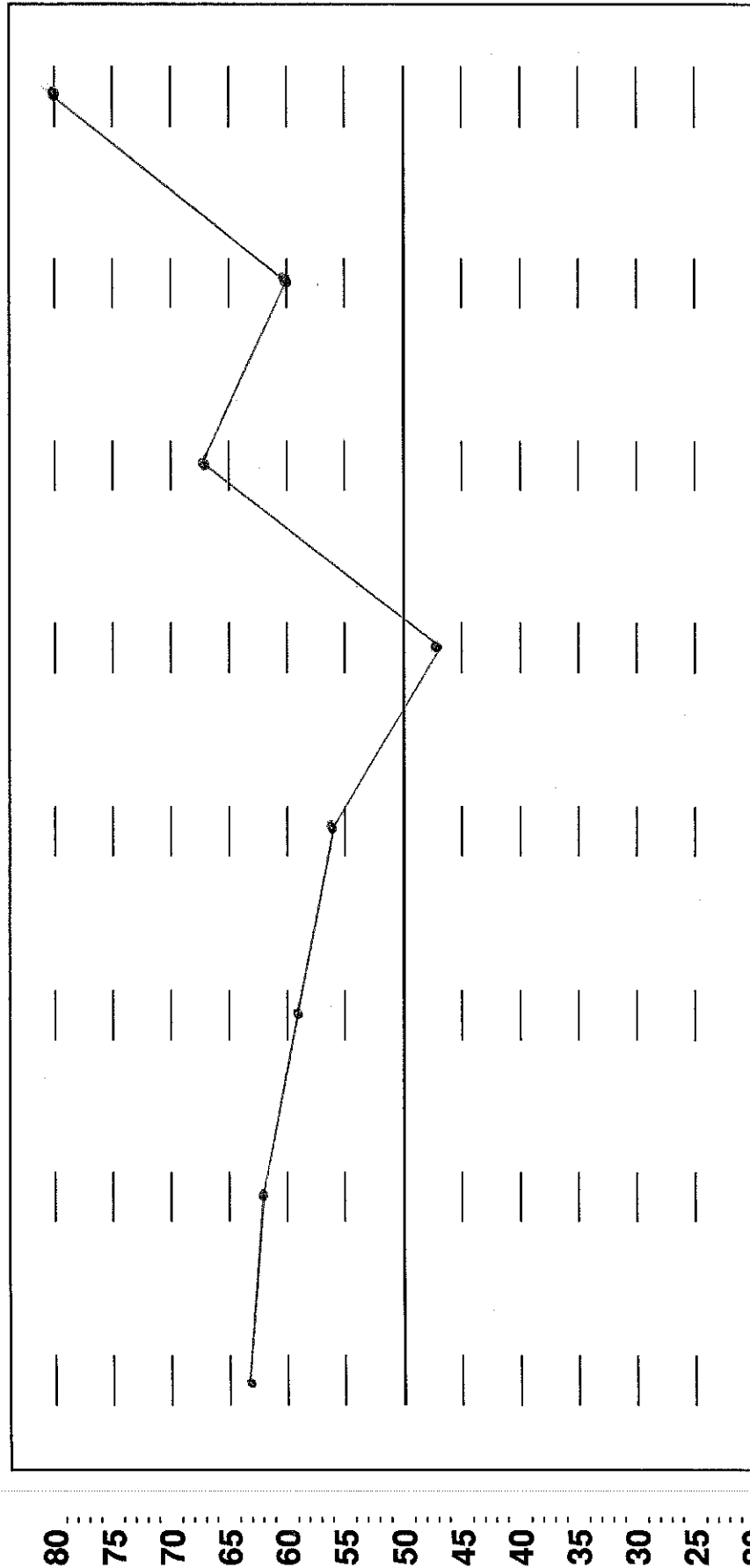
Date: 12/1/88

Please Circle Normative Sample Used:

1. Female Breast Cancer Norm
2. Female Other than Breast Cancer Norm
3. Female Combined Cancer Norm
4. Male Prostate Cancer Norm
5. Male Other than Prostate Cancer Norm
6. Male Combined Cancer Norm

T-Score

% Rank



CARES Global Score	CARES # Prob Endorsed	CARES Aver Sever	PHYSICAL Global Score	PSYCHOSOCIAL Global Score	MEDICAL INTERACTION Global Score	MARITAL Global Score	SEXUAL Global Score
63	62	59	56	48	67	60	80
1.77	30	2.53	1.40	0.50	2.00	1.00	4.00

PHYSICAL SUBSCALE

- 2 1. diff bend or lift
2 2. reduction in energy
3 3. diff household chores
3 4. diff bathe, brush groom
4 5. diff planning activities
4 6. cannot gain weight
— 7. food unappealing
2 8. cancer interferes work
1 9. frequently has pain
1 10. clothes not fit
14 SUM 6 #(1-4) 10 # Potential

MEDICAL INTERACTION SUBSCALE

- 2 11. doctors don't explain what do
3 12. diff ask doctors questions
— 13. diff understand MD about cancer
3 14. wants more control over MD
8 SUM 3 #(1-4) 4 # Potential

PSYCHOSOCIAL SUBSCALE

- 15. uncomfor with body changes
— 16. frequently anxious
4 17. diff sleep
— 18. diff concentrating
— 19. diff ask frnd/rel help
— 20. diff tell frnd/rel about cancer
— 21. frnd/rel say look well when not
1 22. frnd/rel do not visit enough
— 23. frnd/rel diff talk about cancer
— 24. nervous wait to see doctor
— 25. nervous get blood drawn
1 26. worry whether cancer progress
— 27. worry not able to care for self

***Children**

- 37. diff help children cope

***At Work Concerns**

- 1 38. diff talk people at work about cancer
— 39. diff ask time off for medical treatments
1 40. worried about being fired
8 SUM 5 #(1-4) 17 16 14 13
 # Potential Circle

SEXUAL SUBSCALE

- 4 28. doesn't feel sex attract
4 29. not interested in having sex

***Sex Dysfunction**

- 4 42. frequency of sex decreased
12 SUM 3 #(1-4) 32
 # Potential Circle

***MARITAL SUBSCALE**

- 43. diff talk feelings
2 44. diff talk wills/financial matters
— 45. doesn't feel like embrace, kiss, caress
2 46. not get along as well usual
— 47. partner spends too much time providing care
2 48. diff ask partner to take care
6 SUM 3 #(1-4) 60
 # Potential Circle

MISCELLANEOUS SUBGROUPS***Looking for Work**

- 0 41. diff find new job

***Dating**

- 49. diff initiating contact with dates
— 50. diff tell date about cancer

***Chemotherapy-Related Problems**

- 3 51. nervous get chemo
4 52. nauseated during/before chemo
4 53. nauseated after chemo
4 54. vomit after chemo
2 55. other side effects chemo

***Radiation-Related Problems**

- 56. nervous get rad
— 57. nauseous/vomit after rad

***Ostomy**

- 2 58. problems ostomy care and maintenance

***Prosthesis**

- 59. diff with prosthesis

Miscellaneous Items

- 3 30. doesn't follow MD's instruct
— 31. financial problems
2 32. insurance problems
2 33. diff with transport
— 34. gain too much weight
2 35. frequent diarrhea
— 36. poor bladder control
28 SUM 10 #(1-4) 14 # Potential

Global and Average Severity for CARES-SF and 5 Subscales

SCALE	SUM	#	#	Ave.	Global
				Endor	Poten Sever.
Physical	<u>14</u>	<u>6</u>	<u>10</u>	<u>2.33</u>	<u>1.4</u>
Psychoso	<u>8</u>	<u>5</u>	<u>16</u>	<u>1.60</u>	<u>0.50</u>
Med Int	<u>8</u>	<u>3</u>	<u>4</u>	<u>2.67</u>	<u>2.00</u>
Marital	<u>6</u>	<u>3</u>	<u>6</u>	<u>2.00</u>	<u>1.00</u>
Sexual	<u>12</u>	<u>3</u>	<u>3</u>	<u>4.00</u>	<u>4.00</u>
Miscell	<u>28</u>	<u>10</u>	<u>4</u>	<u>—</u>	<u>—</u>
CARES	<u>76</u>	<u>30</u>	<u>43</u>	<u>2.53</u>	<u>1.77</u>

* Items may not apply to all patients

Appendix C

Normative Data Tables CARES

CARES

Standard Score Norms for Prostate Cancer Patients: N=283 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	37	35	49	43	46	27	2.04	70	76	74	58	73	77
0.04	39	38	50	43	47	31	2.08	71	76	74	58	73	78
0.08	41	41	51	43	48	37	2.12	71	76	75	58	73	78
0.12	42	43	51	43	49	38	2.16	71	77	75	58	73	78
0.16	43	44	52	44	51	40	2.20	71	77	76	59	73	78
0.20	44	45	53	44	52	42	2.24	72	78	76	59	73	79
0.24	45	47	54	44	53	44	2.28	72	78	77	59	73	79
0.28	46	49	54	44	53	46	2.32	72	78	77	59	73	79
0.32	47	50	55	45	54	47	2.36	73	79	77	59	74	79
0.36	48	51	56	45	55	49	2.40	73	79	77	60	74	80
0.40	49	52	56	45	56	50	2.44	73	80	77	60	74	80
0.44	50	53	57	46	57	51	2.48	74	80	77	61	74	80
0.48	52	53	57	47	57	52	2.52	75		77	61	74	
0.52	52	54	57	47	58	53	2.56	75		77	61	75	
0.56	53	55	58	47	58	55	2.60	76		77	61	75	
0.60	54	56	58	47	59	56	2.64	76		77	62	75	
0.64	55	57	59	48	59	56	2.68	76		78	62	76	
0.68	55	57	60	48	60	57	2.72	77		78	62	76	
0.72	56	58	61	48	60	58	2.76	78		78	63	76	
0.76	56	58	61	49	61	59	2.80	79		78	63	77	
0.80	57	60	62	49	61	59	2.84	79		78	64	77	
0.84	57	60	62	49	62	60	2.88	80		78	64	77	
0.88	58	60	63	49	62	60	2.92			78	65	77	
0.92	58	61	63	50	63	61	2.96			78	65	77	
0.96	59	61	63	50	64	62	3.00			78	66	78	
1.00	59	62	63	51	65	62	3.04			78	66	78	
1.04	59	62	64	51	65	63	3.08			79	66	78	
1.08	60	63	64	51	66	63	3.12			79	66	78	
1.12	60	64	64	51	66	64	3.16			79	66	78	
1.16	61	64	64	51	66	65	3.20			79	66	78	
1.20	61	64	65	52	66	65	3.24			79	67	79	
1.24	62	65	65	52	67	66	3.28			79	67	79	
1.28	62	65	65	52	68	67	3.32			79	67	79	
1.32	62	66	65	52	69	67	3.36			79	67	79	
1.36	63	66	66	52	69	68	3.40			79	68	79	
1.40	63	66	66	53	69	69	3.44			79	68	79	
1.44	63	66	66	53	69	70	3.48			80	69	80	
1.48	63	66	67	54	70	70	3.52			80	69	80	
1.52	64	67	67	54	71	71	3.56			80	69	80	
1.56	64	68	68	54	71	71	3.60			80	69		
1.60	65	68	68	54	72	72	3.64			80	69		
1.64	65	69	69	54	72	72	3.68				69		
1.68	66	70	70	55	72	73	3.72				70		
1.72	66	71	71	55	72	73	3.76				70		
1.76	66	72	71	55	73	74	3.80				72		
1.80	66	72	71	56	73	75	3.84				73		
1.84	66	73	72	56	73	76	3.88				75		
1.88	67	74	72	56	73	77	3.92				77		
1.92	67	75	72	57	73	77	3.96				78		
1.96	67	75	73	57	73	77	4.00				80		
2.00	68	75	73	58	73	77							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Prostate Cancer Patients: N=283 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0.00	37	35	49	43	46	27	2.52	62	67	64	53	65	62
1.00	43	45	55	46	54	34	2.56	62	67	64	53	65	63
1.04	43	45	55	46	54	35	2.60	62	67	65	53	65	63
1.08	43	45	55	46	54	35	2.64	62	67	65	53	65	64
1.12	43	46	55	46	54	36	2.68	63	67	65	53	66	65
1.16	44	47	55	46	54	37	2.72	64	68	66	53	66	66
1.20	44	48	55	46	54	39	2.76	64	68	66	53	66	66
1.24	45	48	56	47	54	40	2.80	65	68	66	54	66	67
1.28	45	49	56	47	55	41	2.84	65	69	66	54	66	67
1.32	46	50	56	47	56	42	2.88	65	70	66	54	66	67
1.36	46	51	57	47	57	43	2.92	65	70	66	55	66	67
1.40	47	52	57	47	57	44	2.96	66	70	66	56	67	68
1.44	48	52	57	47	57	44	3.00	67	70	67	57	67	69
1.48	48	52	58	47	57	45	3.04	68	70	67	57	67	69
1.52	49	54	59	47	57	46	3.08	68	71	67	57	67	69
1.56	49	54	59	47	57	47	3.12	69	71	67	57	67	70
1.60	50	55	59	48	58	47	3.16	69	71	67	57	67	71
1.64	50	55	59	48	59	48	3.20	69	72	67	57	67	71
1.68	51	55	59	48	59	49	3.24	69	72	67	58	67	72
1.72	52	56	59	48	59	50	3.28	69	73	67	58	67	72
1.76	52	57	60	48	59	51	3.32	70	77	67	58	68	73
1.80	53	57	60	48	59	52	3.36	70	78	67	58	68	75
1.84	54	58	60	48	60	53	3.40	70	79	67	58	68	75
1.88	55	58	60	48	60	54	3.44	71	80	68	59	68	76
1.92	55	58	61	49	60	54	3.48	72		68	59	68	78
1.96	56	58	61	50	61	55	3.52	73		68	60	68	
2.00	57	60	62	50	61	56	3.56	75		68	60	68	
2.04	57	60	62	50	62	57	3.60	75		69	60	69	
2.08	57	60	62	50	62	58	3.64	76		69	60	69	
2.12	58	61	62	50	62	58	3.68	76		70	60	69	
2.16	58	61	62	50	62	59	3.72	77		72	60	69	
2.20	58	61	62	51	63	59	3.76	79		73	61	69	
2.24	59	62	63	51	63	59	3.80	80		74	61	69	
2.28	59	62	63	51	63	60	3.84			75	62	69	
2.32	60	63	63	51	64	60	3.88			76	66	72	
2.36	60	64	63	52	64	61	3.92			78	71	74	
2.40	61	64	63	52	64	61	3.96			79	75	77	
2.44	61	65	64	52	64	61	4.00			80	80	80	
2.48	61	66	64	52	65	62							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Prostate Cancer Patients: N=283 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	37	35	49	43	46	27	40						56
1	39	38	51	46	48	29	41						57
2	42	40	55	49	50	31	42						57
3	44	42	56	52	53	32	43						58
4	45	44	59	58	54	33	44						58
5	47	45	61	60	56	35	45						59
6	48	46	63	63	58	36	46						59
7	50	47	65	66	60	37	47						60
8	52	48	69	80	61	38	48						60
9	54	50	73		62	39	49						60
10	56	51	76		63	40	50						61
11	57	51	80		66	41	51						61
12	59	53			67	41	52						61
13	60	54			70	41	53						62
14	61	55			72	42	54						62
15	62	56			74	43	55						63
16	63	56			77	44	56						63
17	65	58			80	45	57						63
18	67	59				45	58						64
19	70	60				46	59						65
20	71	61				46	60						66
21	72	62				47	61						67
22	77	63				48	62						68
23	80	64				48	63						68
24		66				49	64						69
25		67				49	65						69
26		68				49	66						70
27		69				50	67						70
28		69				50	68						71
29		69				51	69						71
30		70				52	70						72
31		72				52	71						72
32		75				53	72						72
33		77				53	73						73
34		80				54	74						73
35						54	75						73
36						55	76						77
37						55	77						78
38						55	78						80
39						56							

^a Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Breast Cancer Patients: N=178 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	32	25	48	43	43	20	2.04	70	68	71	64	70	72
0.04	35	30	49	43	44	26	2.08	70	69	72	64	70	73
0.08	38	33	50	44	45	30	2.12	70	69	72	64	70	73
0.12	40	34	51	44	46	36	2.16	70	70	72	64	71	73
0.16	42	35	53	45	46	38	2.20	70	71	72	65	71	73
0.20	44	37	53	47	48	39	2.24	70	73	73	65	71	73
0.24	45	39	54	48	49	41	2.28	70	73	73	65	71	74
0.28	46	41	55	48	50	43	2.32	70	73	73	65	72	74
0.32	46	43	55	49	51	44	2.36	71	74	74	65	73	74
0.36	47	44	55	49	52	45	2.40	71	74	74	65	73	75
0.40	48	46	56	50	53	46	2.44	71	74	74	65	74	75
0.44	49	47	57	50	54	47	2.48	71	74	75	65	74	77
0.48	49	47	58	51	54	48	2.52	71	74	75	65	75	80
0.52	50	48	59	51	55	49	2.56	71	75	75	66	75	
0.56	51	49	59	52	56	51	2.60	72	75	76	66	76	
0.60	52	50	59	52	56	52	2.64	74	75	76	66	76	
0.64	52	50	60	52	57	53	2.68	75	76	76	66	76	
0.68	53	51	60	53	57	53	2.72	75	77	77	66	77	
0.72	53	52	61	53	58	54	2.76	76	78	77	66	77	
0.76	54	53	62	54	59	55	2.80	76	79	77	66	78	
0.80	55	53	62	54	59	55	2.84	76	79	78	66	78	
0.84	55	54	62	54	60	56	2.88	77	78		66	78	
0.88	56	54	62	54	60	57	2.92	77	78		67	79	
0.92	56	55	62	54	60	58	2.96	77	79		67	79	
0.96	57	56	63	55	60	58	3.00	78	79		67	79	
1.00	57	56	63	56	61	59	3.04	78	80		67	80	
1.04	58	56	64	56	61	60	3.08	78	80		67		
1.08	58	57	65	56	61	61	3.12	79			68		
1.12	59	58	66	56	62	61	3.16	79			68		
1.16	59	59	66	57	62	62	3.20	79			68		
1.20	60	59	66	57	63	62	3.24	79			69		
1.24	60	59	66	57	63	63	3.28	80			69		
1.28	60	60	66	58	64	64	3.32				70		
1.32	61	61	67	58	64	65	3.36				70		
1.36	61	61	68	58	64	65	3.40				70		
1.40	62	61	68	58	65	66	3.44				71		
1.44	63	61	69	58	66	66	3.48				71		
1.48	63	62	69	59	66	67	3.52				72		
1.52	64	62	70	59	67	67	3.56				72		
1.56	65	63	70	59	67	68	3.60				73		
1.60	65	63	70	59	67	70	3.64				74		
1.64	66	64	70	59	67	70	3.68				74		
1.68	67	65	70	60	68	71	3.72				75		
1.72	67	65	71	60	68	71	3.76				76		
1.76	67	66	71	61	68	71	3.80				76		
1.80	68	66	71	61	68	72	3.84				77		
1.84	68	67	71	61	69	72	3.88				78		
1.88	69	67	71	61	69	72	3.92				79		
1.92	69	67	71	62	69	72	3.96				79		
1.96	69	67	71	63	69	72	4.00				80		
2.00	69	67	71	63	70	72							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Breast Cancer Patients: N=178 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	32	25	48	43	43		2.52	63	62	65	59	62	64
1.00	43	39	56	51	49	33	2.56	63	62	65	59	62	64
1.04	43	40	56	51	49	34	2.60	63	63	66	59	63	65
1.08	44	41	56	51	49	35	2.64	64	63	66	59	63	65
1.12	44	42	56	51	49	39	2.68	64	63	66	59	63	66
1.16	44	44	56	51	50	40	2.72	65	64	66	60	63	66
1.20	45	44	56	51	50	41	2.76	65	65	66	60	64	67
1.24	46	45	56	51	50	41	2.80	65	66	66	60	64	67
1.28	46	46	56	51	50	42	2.84	65	66	66	60	65	67
1.32	47	46	57	51	51	44	2.88	66	66	67	60	65	68
1.36	48	47	57	51	52	44	2.92	66	66	67	61	65	68
1.40	48	48	57	52	52	45	2.96	67	66	67	61	65	69
1.44	49	49	57	52	52	45	3.00	67	67	67	62	66	69
1.48	49	51	58	52	53	46	3.04	67	67	67	62	66	69
1.52	51	52	58	53	53	47	3.08	68	68	68	62	66	70
1.56	51	52	58	53	53	48	3.12	68	68	68	62	66	71
1.60	51	52	59	53	54	49	3.16	68	68	68	62	67	71
1.64	52	53	59	53	54	50	3.20	68	68	68	62	68	72
1.68	53	53	59	53	54	51	3.24	69	70	68	62	68	75
1.72	53	53	59	54	55	52	3.28	69	71	68	63	68	76
1.76	53	54	59	54	55	52	3.32	70	71	68	63	68	76
1.80	54	54	60	54	55	52	3.36	71	72	69	63	68	77
1.84	54	54	60	54	56	53	3.40	72	72	69	63	68	77
1.88	55	55	61	55	56	54	3.44	73	72	69	63	69	78
1.92	55	55	61	56	56	55	3.48	73	72	69	63	69	78
1.96	56	56	62	57	57	55	3.52	74	72	70	64	69	79
2.00	57	57	63	57	59	56	3.56	74	72	70	64	69	79
2.04	57	57	63	57	59	56	3.60	75	73	70	64	69	80
2.08	58	58	63	57	59	57	3.64	75	73	70	64	69	
2.12	58	59	63	58	59	58	3.68	76	74	70	64	70	
2.16	59	59	63	58	60	59	3.72	76	74	72	64	71	
2.20	59	59	63	58	60	60	3.76	77	75	73	64	72	
2.24	60	60	63	58	60	61	3.80	77	76	74	64	74	
2.28	60	60	63	58	60	61	3.84	78	77	75	65	75	
2.32	60	60	64	58	61	62	3.88	78	78	76	69	76	
2.36	60	61	64	58	61	62	3.92	79	78	78	73	77	
2.40	61	61	64	58	61	62	3.96	79	79	79	76	79	
2.44	62	61	64	58	62	63	4.00	80	80	80	80	80	
2.48	62	62	65	59	62	64							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Breast Cancer Patients: N=178 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	32	25	48	43	43	20	46						55
1	36	30	50	50	45	22	47						56
2	39	33	56	53	47	25	48						56
3	42	34	58	55	49	27	49						56
4	44	35	59	58	51	28	50						56
5	45	36	62	60	52	30	51						57
6	47	37	64	63	56	31	52						57
7	48	38	65	68	58	32	53						57
8	50	40	66	80	59	33	54						57
9	51	42	66		61	34	55						58
10	52	42	69		61	34	56						58
11	54	43	80		63	35	57						59
12	54	45			64	37	58						60
13	56	46			67	38	59						60
14	57	47			74	38	60						60
15	59	48			80	39	61						60
16	61	49				39	62						61
17	62	50				39	63						62
18	64	51				39	64						62
19	65	53				40	65						62
20	67	54				41	66						63
21	70	55				42	67						64
22	73	55				42	68						64
23	75	57				44	69						65
24	78	58				44	70						65
25	80	59				45	71						65
26		60				46	72						65
27		61				46	73						66
28		62				47	74						67
29		65				47	75						67
30		66				47	76						68
31		67				47	77						69
32		68				48	78						70
33		69				48	79						71
34		69				49	80						72
35		71				49	81						72
36		73				49	82						72
37		75				50	83						73
38		78				50	84						73
39		80				51	85						74
40						51	86						74
41						52	87						75
42						52	88						76
43						52	89						78
44						53	90						79
45						54	91						80

^a Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	34	32	48	43	44	24	2.04	66	70	72	60	71	74
0.04	38	35	49	43	46	32	2.08	66	70	72	61	72	75
0.08	39	38	50	44	48	34	2.12	67	70	73	61	72	76
0.12	40	40	51	44	50	37	2.16	67	70	73	61	72	77
0.16	41	42	52	44	51	39	2.20	68	71	73	61	72	77
0.20	42	44	52	45	52	41	2.24	68	71	73	61	73	78
0.24	43	45	53	45	52	43	2.28	69	72	73	62	73	78
0.28	44	46	53	46	53	44	2.32	69	73	74	62	73	79
0.32	45	48	54	46	55	46	2.36	70	75	75	62	73	79
0.36	45	49	55	46	55	47	2.40	70	76	75	62	74	79
0.40	46	50	55	47	56	48	2.44	70	77	76	63	74	80
0.44	47	51	56	47	57	49	2.48	71	78	76	63	74	80
0.48	47	51	56	48	57	50	2.52	71	79	76	63	74	
0.52	48	52	57	48	58	51	2.56	71	79	76	64	74	
0.56	49	53	57	48	58	52	2.60	72	79	76	64	75	
0.60	49	54	57	49	59	52	2.64	73	79	77	64	75	
0.64	50	54	58	49	59	53	2.68	74	79	77	65	75	
0.68	50	55	58	49	60	53	2.72	74	80	77	65	75	
0.72	51	56	59	50	60	54	2.76	75	80	77	65	76	
0.76	51	56	59	50	61	55	2.80	75	80	77	65	76	
0.80	52	56	60	50	61	56	2.84	76	80	78	65	76	
0.84	53	57	60	50	61	56	2.88	76		78	66	77	
0.88	53	57	61	50	62	57	2.92	77		78	66	77	
0.92	54	58	61	51	62	58	2.96	77		78	67	78	
0.96	54	59	61	52	63	58	3.00	77		78	68	78	
1.00	55	60	62	52	63	59	3.04	78		79	68	78	
1.04	56	60	62	52	63	59	3.08	78		79	68	78	
1.08	56	60	63	53	64	60	3.12	79		79	68	78	
1.12	57	61	63	53	64	61	3.16	79		79	68	78	
1.16	57	61	63	53	64	62	3.20			79	68	79	
1.20	57	61	63	54	64	63	3.24			79	68	79	
1.24	58	62	64	54	65	63	3.28			79	68	79	
1.28	58	63	64	54	65	63	3.32			80	68	79	
1.32	59	63	65	55	65	64	3.36			80	69	79	
1.36	59	63	65	55	65	65	3.40			80	69	80	
1.40	60	64	65	55	65	66	3.44			80	69	80	
1.44	60	65	66	56	65	67	3.48				69	80	
1.48	60	66	66	56	65	68	3.52				70		
1.52	60	66	67	56	65	68	3.56				70		
1.56	61	67	67	56	65	69	3.60				70		
1.60	61	68	68	57	66	69	3.64				70		
1.64	61	68	68	57	66	70	3.68				70		
1.68	62	69	68	57	66	70	3.72				71		
1.72	62	69	68	58	67	71	3.76				71		
1.76	63	69	68	58	67	71	3.80				71		
1.80	63	69	68	58	68	71	3.84				71		
1.84	63	69	70	58	68	71	3.88				71		
1.88	64	69	70	58	69	72	3.92				74		
1.92	65	69	71	59	69	72	3.96				77		
1.96	65	70	71	60	70	73	4.00				80		
2.00	66	70	72	60	70	73							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	34	32	48	43	44	24	2.52	60	63	64	56	64	62
1.00	41	42	55	47	53	34	2.56	60	63	64	56	64	63
1.04	41	42	55	47	53	34	2.60	60	63	64	56	64	64
1.08	41	42	55	47	53	35	2.64	61	63	65	57	65	64
1.12	42	43	55	47	53	37	2.68	62	64	65	57	65	65
1.16	42	44	55	47	53	37	2.72	62	64	65	58	65	65
1.20	42	46	56	47	54	38	2.76	62	65	65	58	66	66
1.24	42	46	56	48	54	39	2.80	63	65	65	59	66	66
1.28	43	47	56	48	55	40	2.84	64	65	65	59	66	67
1.32	44	48	56	48	55	42	2.88	64	66	66	59	67	67
1.36	45	49	57	48	56	43	2.92	65	66	66	60	67	68
1.40	45	49	57	48	56	43	2.96	65	67	67	60	68	68
1.44	46	50	57	49	56	44	3.00	65	69	68	60	69	68
1.48	46	51	58	49	56	45	3.04	66	69	68	61	69	69
1.52	47	52	58	50	57	46	3.08	66	70	68	61	70	69
1.56	47	52	58	50	57	47	3.12	67	70	68	61	70	70
1.60	48	53	59	50	57	48	3.16	67	72	68	61	70	72
1.64	48	54	59	50	57	48	3.20	67	76	68	61	71	72
1.68	49	54	59	51	58	49	3.24	69	77	69	61	72	73
1.72	50	55	59	51	58	50	3.28	69	78	69	61	72	74
1.76	50	56	59	51	58	50	3.32	70	79	69	61	72	75
1.80	51	56	60	51	58	51	3.36	70	79	69	62	72	75
1.84	51	57	60	51	58	52	3.40	70	79	69	62	72	76
1.88	52	57	60	52	59	52	3.44	71	79	69	62	72	77
1.92	52	57	61	52	59	53	3.48	72	80	70	62	73	77
1.96	53	58	61	53	60	54	3.52	73	80	70	62	73	78
2.00	54	58	62	53	61	55	3.56	74	80	70	62	74	79
2.04	54	59	62	53	61	55	3.60	74	80	70	63	74	80
2.08	55	59	63	53	61	55	3.64	75		71	63	74	
2.12	55	59	63	53	61	56	3.68	75		72	63	74	
2.16	55	60	63	54	62	57	3.72	75		73	63	74	
2.20	56	60	63	54	62	57	3.76	76		74	64	74	
2.24	56	60	63	54	62	58	3.80	79		75	64	75	
2.28	56	61	63	54	62	58	3.84	79		76	64	75	
2.32	57	61	63	55	62	59	3.88	79		77	64	75	
2.36	58	61	63	55	63	60	3.92	80		78	69	75	
2.40	58	62	63	55	63	60	3.96	80		79	75	77	
2.44	59	62	63	55	63	60	4.00	80		80	80	80	
2.48	59	62	64	56	63	61							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	34	32	48	43	44	24	51						57
1	38	35	50	46	48	28	52						57
2	40	38	53	50	51	30	53						57
3	41	40	56	52	52	31	54						58
4	43	41	57	57	54	32	55						58
5	44	42	59	60	55	33	56						58
6	45	44	61	63	57	33	57						59
7	47	46	63	66	59	35	58						59
8	48	47	64	80	61	35	59						60
9	50	48	67		62	36	60						61
10	51	49	70		62	37	61						61
11	52	50	80		64	38	62						61
12	54	51			65	39	63						62
13	55	52			68	39	64						62
14	57	53			69	40	65						62
15	58	53			73	41	66						63
16	60	54			77	42	67						63
17	61	56			80	43	68						64
18	62	56				44	69						64
19	63	57				44	70						64
20	65	57				45	71						65
21	67	58				45	72						65
22	69	59				46	73						66
23	73	60				46	74						66
24	79	61				47	75						67
25	80	62				48	76						67
26		62				48	77						67
27		63				48	78						68
28		65				49	79						68
29		66				49	80						68
30		67				49	81						69
31		67				50	82						70
32		68				50	83						70
33		70				51	84						71
34		70				51	85						71
35		73				51	86						72
36		75				52	87						73
37		79				52	88						73
38		80				52	89						73
39						52	90						75
40						53	91						75
41						53	92						76
42						53	93						77
43						54	94						79
44						54	95						79
45						54	96						79
46						55	97						79
47						55	98						80
48						56	99						80
49						56	100						80
50						56							

^a Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Female Non-Breast Cancer Patients: N=224 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	34	30	47	45	43	23	2.04	62	65	68	61	65	71
0.04	35	33	48	45	44	30	2.08	62	65	69	61	65	72
0.08	38	35	49	45	45	32	2.12	63	65	69	61	66	73
0.12	38	36	50	46	46	35	2.16	63	65	69	61	66	73
0.16	40	38	51	46	47	36	2.20	63	66	69	62	66	74
0.20	42	40	52	47	49	38	2.24	64	66	70	62	66	74
0.24	43	40	53	47	49	40	2.28	64	68	70	62	67	74
0.28	44	42	54	47	50	40	2.32	65	68	70	62	68	75
0.32	45	43	54	48	51	43	2.36	66	69	70	62	69	75
0.36	45	45	55	48	51	44	2.40	67	70	71	62	70	76
0.40	46	46	55	48	52	46	2.44	68	70	71	62	70	76
0.44	46	47	56	49	52	47	2.48	68	70	71	63	70	77
0.48	47	48	56	49	53	48	2.52	68	70	72	63	70	77
0.52	48	50	56	50	54	49	2.56	69	70	72	63	71	78
0.56	48	50	57	50	54	50	2.60	69	71	72	63	71	78
0.60	49	51	57	50	55	51	2.64	69	71	73	64	71	79
0.64	49	51	57	50	55	52	2.68	70	71	73	64	71	79
0.68	50	52	58	51	56	52	2.72	71	71	73	65	71	80
0.72	51	52	59	51	56	52	2.76	71	71	73	65	71	80
0.76	51	53	59	52	57	53	2.80	72	72	73	65	72	
0.80	51	54	59	52	58	54	2.84	72	72	73	66	72	
0.84	51	54	59	52	59	54	2.88	73	73	74	66	72	
0.88	52	55	60	52	59	55	2.92	74	77	74	66	73	
0.92	53	56	60	53	59	56	2.96	75	77	74	66	73	
0.96	53	56	61	54	60	56	3.00	77	77	74	67	73	
1.00	54	57	61	55	60	57	3.04	77	78	75	67	74	
1.04	54	57	61	55	60	57	3.08	78	78	75	67	74	
1.08	54	57	61	55	60	58	3.12	78	78	75	67	75	
1.12	55	57	62	55	60	58	3.16	79	79	76	68	76	
1.16	55	58	62	55	61	58	3.20	79	79	76	68	77	
1.20	56	58	63	56	61	58	3.24	80	79	76	69	77	
1.24	56	58	63	56	61	58	3.28		80	77	69	78	
1.28	56	59	64	56	62	59	3.32			78	69	79	
1.32	57	59	64	56	62	59	3.36			80	69	79	
1.36	57	59	64	57	62	60	3.40				69		
1.40	58	60	64	57	62	61	3.44				69		
1.44	58	60	64	57	62	61	3.48				69		
1.48	58	60	65	57	62	62	3.52				69		
1.52	58	61	65	57	62	62	3.56				70		
1.56	59	61	65	58	62	62	3.60				70		
1.60	59	61	65	58	62	63	3.64				70		
1.64	60	63	65	58	63	64	3.68				70		
1.68	60	63	66	58	63	64	3.72				71		
1.72	60	63	66	58	63	64	3.76				71		
1.76	61	63	66	58	63	65	3.80				73		
1.80	61	63	66	59	63	66	3.84				74		
1.84	61	64	67	59	63	66	3.88				76		
1.88	61	64	67	59	63	67	3.92				77		
1.92	62	64	67	60	64	68	3.96				79		
1.96	62	65	68	60	64	69	4.00				80		
2.00	62	65	68	60	65	70							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Female Non-Breast Cancer Patients: N=224 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	34	30	47	45	43	23	2.52	57	61	65	56	62	59
1.00	40	39	54	49	49	31	2.56	57	62	65	56	62	60
1.04	40	39	54	49	49	32	2.60	58	62	65	56	62	61
1.08	41	40	54	49	49	33	2.64	58	63	65	56	62	62
1.12	41	42	54	49	49	34	2.68	59	63	66	56	62	62
1.16	41	43	54	49	50	35	2.72	59	63	66	56	63	62
1.20	42	43	54	49	50	36	2.76	60	63	66	56	63	62
1.24	42	44	55	50	51	38	2.80	61	63	66	56	63	62
1.28	43	45	55	50	51	39	2.84	62	64	67	56	64	63
1.32	44	45	55	50	52	40	2.88	62	64	67	56	64	64
1.36	44	46	55	50	52	41	2.92	62	64	67	57	64	66
1.40	44	47	55	50	52	43	2.96	63	65	67	57	64	67
1.44	45	48	55	51	53	44	3.00	64	65	68	58	64	67
1.48	46	48	56	51	53	45	3.04	64	65	68	58	64	67
1.52	46	49	56	51	54	45	3.08	65	66	68	58	65	68
1.56	47	50	56	51	54	46	3.12	66	67	68	58	65	68
1.60	48	51	56	51	55	47	3.16	66	67	68	59	65	69
1.64	48	51	57	51	55	47	3.20	67	67	68	59	65	69
1.68	49	52	57	51	55	48	3.24	67	67	68	59	65	69
1.72	50	52	57	52	56	49	3.28	68	67	68	59	66	69
1.76	50	52	58	52	56	49	3.32	68	67	69	59	66	70
1.80	51	53	58	52	56	50	3.36	69	67	69	59	66	70
1.84	51	53	58	52	57	50	3.40	69	68	69	60	66	71
1.88	51	54	58	53	57	50	3.44	70	68	70	60	66	72
1.92	51	54	59	53	58	51	3.48	72	69	70	60	66	73
1.96	52	55	60	53	58	52	3.52	73	70	70	60	67	73
2.00	53	56	61	54	58	53	3.56	77	71	70	60	67	73
2.04	53	56	61	54	58	53	3.60	77	71	71	60	67	74
2.08	54	56	61	54	58	54	3.64	77	71	72	60	67	75
2.12	54	57	62	54	59	55	3.68	78	72	73	61	68	76
2.16	54	57	62	54	59	55	3.72	78	72	74	61	68	77
2.20	54	58	62	54	59	56	3.76	79	72	75	61	69	78
2.24	55	58	62	54	60	56	3.80	79	72	75	61	70	78
2.28	55	58	63	54	60	56	3.84	80	73	76	62	70	79
2.32	55	58	63	54	60	57	3.88		76	77	67	71	80
2.36	56	59	63	54	60	58	3.92		77	78	71	72	
2.40	56	59	63	55	61	58	3.96		79	79	76	76	
2.44	56	60	64	55	61	59	4.00		80	80	80	80	
2.48	57	60	64	55	61	59							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES

Standard Score Norms for Female Non-Breast Cancer Patients: N=224 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	34	30	47	45	43	23	47						55
1	36	32	50	50	45	28	48						55
2	38	33	54	53	47	29	49						56
3	40	36	56	55	48	31	50						56
4	42	37	57	59	51	32	51						56
5	44	39	58	60	52	32	52						56
6	45	40	60	62	53	33	53						57
7	46	42	63	66	54	33	54						57
8	47	43	65	80	57	33	55						57
9	49	44	67		59	35	56						57
10	50	45	70		61	36	57						57
11	51	46	80		63	37	58						58
12	53	47			64	37	59						58
13	54	48			65	37	60						58
14	56	49			67	38	61						58
15	58	50			70	38	62						59
16	59	51			74	38	63						59
17	59	52			80	39	64						60
18	61	54				40	65						60
19	62	54				41	66						61
20	65	55				41	67						61
21	67	57				42	68						61
22	68	57				42	69						62
23	69	58				43	70						62
24	72	59				44	71						62
25	80	59				45	72						63
26		60				46	73						63
27		61				46	74						63
28		62				46	75						64
29		63				47	76						64
30		63				47	77						66
31		64				48	78						67
32		65				49	79						67
33		67				49	80						68
34		68				50	81						68
35		69				50	82						69
36		69				50	83						69
37		70				51	84						71
38		74				51	85						71
39		77				52	86						71
40		80				52	87						72
41						52	88						72
42						53	89						72
43						53	90						73
44						53	91						74
45						54	92						77
46						54	93						80

^aMarital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Male Patients: N=701 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	33	49	43	45	25	2.04	67	71	72	59	72	75
0.04	38	37	49	43	47	32	2.08	68	71	73	60	72	76
0.08	39	40	50	43	48	36	2.12	68	71	73	60	72	77
0.12	41	41	51	44	50	37	2.16	68	72	74	60	72	77
0.16	42	43	52	44	51	39	2.20	69	73	74	60	72	77
0.20	43	44	53	45	52	42	2.24	69	73	74	60	73	77
0.24	44	46	53	45	53	43	2.28	70	73	75	61	73	77
0.28	45	48	54	45	53	45	2.32	70	74	75	61	73	77
0.32	46	49	55	45	54	46	2.36	71	75	76	61	73	78
0.36	46	50	55	46	55	48	2.40	71	77	76	61	73	79
0.40	47	51	56	46	56	49	2.44	71	77	76	62	74	79
0.44	48	52	56	47	57	50	2.48	72	77	77	62	74	80
0.48	49	52	57	47	57	51	2.52	72	80	77	62	74	
0.52	50	53	57	48	58	52	2.56	72	80	77	63	74	
0.56	50	54	57	48	58	53	2.60	73	80	77	63	74	
0.60	51	54	58	48	59	54	2.64	74	80	77	63	74	
0.64	52	55	58	48	59	54	2.68	74	80	77	63	74	
0.68	52	56	59	49	60	55	2.72	75	80	77	64	75	
0.72	53	56	60	49	60	56	2.76	75	80	77	64	75	
0.76	53	57	60	49	61	56	2.80	76	80	77	64	76	
0.80	54	57	60	50	61	57	2.84	76	80	77	65	76	
0.84	54	58	61	50	62	57	2.88	77		77	65	76	
0.88	55	58	61	50	62	58	2.92	78		77	66	76	
0.92	55	59	62	50	63	59	2.96	78		77	66	77	
0.96	56	60	62	51	63	59	3.00	79		77	67	77	
1.00	57	60	62	52	64	60	3.04	79		77	67	77	
1.04	57	61	63	52	64	61	3.08	80		77	67	77	
1.08	57	61	63	52	64	61	3.12	80		78	67	77	
1.12	58	62	63	52	65	62	3.16	80		78	67	77	
1.16	58	62	63	52	65	63	3.20			78	67	78	
1.20	59	62	64	53	65	64	3.24			79	67	78	
1.24	59	63	64	53	65	64	3.28			79	67	78	
1.28	59	64	64	53	66	64	3.32			79	68	78	
1.32	60	64	65	54	66	65	3.36			79	68	78	
1.36	60	64	65	54	66	66	3.40			80	68	78	
1.40	61	65	66	54	66	67	3.44			80	68	79	
1.44	61	66	66	55	66	67	3.48			80	69	79	
1.48	61	66	66	55	67	69	3.52			80	69	79	
1.52	62	67	67	55	67	69	3.56			80	70	80	
1.56	62	68	67	55	67	70	3.60			80	70		
1.60	62	68	68	56	67	70	3.64			80	70		
1.64	63	69	68	56	68	71	3.68				70		
1.68	63	69	69	56	68	71	3.72				70		
1.72	63	70	69	57	68	71	3.76				70		
1.76	64	70	69	57	68	72	3.80				70		
1.80	64	70	69	57	69	72	3.84				70		
1.84	64	70	71	57	70	73	3.88				71		
1.88	65	70	71	57	70	73	3.92				74		
1.92	65	71	71	58	70	73	3.96				77		
1.96	66	71	72	59	71	74	4.00				80		
2.00	67	71	72	59	71	75							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Male Patients: N=701 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	33	49	43	45	25	2.52	60	64	64	55	64	62
1.00	42	43	55	47	53	34	2.56	60	64	64	55	65	63
1.04	42	43	55	47	53	34	2.60	61	64	64	55	65	64
1.08	42	44	55	47	53	35	2.64	61	65	65	55	65	64
1.12	42	44	55	47	53	36	2.68	62	65	65	55	65	65
1.16	43	45	55	47	54	37	2.72	63	65	65	56	65	65
1.20	43	47	55	47	54	38	2.76	63	66	65	56	66	66
1.24	43	47	56	47	54	39	2.80	64	66	65	56	66	66
1.28	44	48	56	47	55	40	2.84	64	66	65	56	66	67
1.32	45	48	56	48	56	42	2.88	65	67	66	56	66	67
1.36	45	50	57	48	56	43	2.92	65	67	66	57	66	67
1.40	46	50	57	48	56	43	2.96	65	68	67	58	67	68
1.44	46	51	57	48	56	44	3.00	66	69	67	59	68	68
1.48	47	51	58	48	57	45	3.04	66	70	67	59	68	69
1.52	48	53	58	49	57	46	3.08	67	70	67	59	68	69
1.56	48	53	58	49	57	47	3.12	67	70	67	59	68	70
1.60	48	54	59	49	57	48	3.16	67	71	67	59	68	71
1.64	49	54	59	49	58	48	3.20	68	74	68	59	69	72
1.68	50	55	59	49	58	49	3.24	69	74	68	59	69	73
1.72	50	56	59	50	58	50	3.28	69	74	68	60	69	73
1.76	51	56	60	50	58	51	3.32	69	77	68	60	70	73
1.80	52	57	60	50	58	52	3.36	70	78	68	60	70	75
1.84	52	57	60	50	59	52	3.40	70	79	68	60	70	75
1.88	53	57	60	50	59	53	3.44	71	80	68	60	70	76
1.92	53	58	61	51	59	54	3.48	72	80	69	61	70	77
1.96	54	58	61	51	60	54	3.52	73	80	69	61	70	78
2.00	55	59	62	52	61	55	3.56	74	80	69	61	71	80
2.04	55	59	62	52	61	56	3.60	74	80	69	61	71	80
2.08	56	59	62	52	61	56	3.64	75		69	62	71	
2.12	56	60	62	52	61	57	3.68	75		71	62	71	
2.16	56	60	63	52	62	57	3.72	76		72	62	71	
2.20	57	60	63	53	62	58	3.76	76		73	62	71	
2.24	57	61	63	53	63	58	3.80	80		74	62	71	
2.28	58	61	63	53	63	59	3.84	80		75	62	71	
2.32	58	62	63	53	63	59	3.88	80		76	62	72	
2.36	59	62	63	53	63	60	3.92	80		78	68	72	
2.40	59	63	63	54	63	60	3.96	80		79	74	75	
2.44	59	63	63	54	63	61	4.00	80		80	80	80	
2.48	60	63	64	54	64	61							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Male Patients: N=701 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	35	33	49	43	45	25	51						58
1	39	36	51	46	48	29	52						58
2	40	39	54	50	50	30	53						59
3	42	41	56	52	52	31	54						59
4	44	42	58	57	54	33	55						59
5	45	43	60	60	55	34	56						60
6	47	45	62	63	58	35	57						60
7	48	46	64	66	59	36	58						61
8	50	47	66	80	61	37	59						62
9	51	49	69		62	38	60						62
10	53	50	71		63	38	61						63
11	54	51	80		65	39	62						63
12	56	52			66	40	63						64
13	57	52			69	40	64						64
14	58	54			70	41	65						64
15	60	54			73	42	66						65
16	61	55			76	43	67						65
17	62	56			80	44	68						66
18	64	57				44	69						66
19	65	58				45	70						66
20	67	59				45	71						67
21	68	60				46	72						67
22	71	60				47	73						67
23	75	61				47	74						68
24	80	62				48	75						69
25	80	63				48	76						69
26		64				49	77						69
27		65				49	78						70
28		66				49	79						70
29		67				50	80						71
30		68				50	81						71
31		68				51	82						72
32		70				51	83						72
33		71				52	84						73
34		72				52	85						73
35		75				52	86						74
36		77				53	87						75
37		80				53	88						75
38		80				53	89						75
39						54	90						77
40						54	91						77
41						54	92						77
42						55	93						79
43						55	94						80
44						56	95						80
45						56	96						80
46						57	97						80
47						57	98						80
48						57	99						80
49						57	100						80
50						58							

^a Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Female Cancer Patients: (N=402) Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	33	28	47	44	43	21	2.04	64	66	69	62	67	71
0.04	35	32	49	44	44	28	2.08	65	66	70	62	67	72
0.08	38	34	50	45	45	31	2.12	65	67	70	62	67	72
0.12	39	35	51	45	46	35	2.16	65	67	70	63	67	72
0.16	41	37	52	46	47	37	2.20	65	67	70	63	67	73
0.20	43	38	53	47	48	38	2.24	66	68	70	63	68	73
0.24	44	40	53	48	49	40	2.28	66	69	71	63	69	74
0.28	45	42	54	48	50	41	2.32	67	69	71	63	70	74
0.32	45	43	55	48	51	43	2.36	67	70	71	63	70	74
0.36	46	44	55	48	51	45	2.40	68	71	71	63	71	74
0.40	47	46	56	49	52	46	2.44	69	71	72	64	71	75
0.44	47	47	56	49	53	47	2.48	69	71	72	64	72	76
0.48	48	48	57	50	54	48	2.52	69	71	73	64	72	79
0.52	49	49	57	50	54	49	2.56	69	72	73	64	72	79
0.56	49	50	58	51	55	50	2.60	70	72	73	64	72	79
0.60	50	50	58	51	55	51	2.64	70	72	74	64	72	79
0.64	51	51	58	51	56	52	2.68	71	72	74	65	72	80
0.68	51	52	59	52	56	53	2.72	72	72	74	65	72	80
0.72	52	52	60	52	57	53	2.76	73	73	74	65	72	80
0.76	52	53	60	52	58	54	2.80	73	73	74	66	72	
0.80	53	54	60	53	58	55	2.84	73	74	74	66	73	
0.84	53	54	61	53	59	55	2.88	74	75	74	66	73	
0.88	54	55	61	53	59	56	2.92	75	79	75	66	74	
0.92	54	55	61	54	60	56	2.96	75	79	75	67	75	
0.96	55	56	61	55	60	57	3.00	76	79	75	67	75	
1.00	55	56	61	55	60	58	3.04	76	79	75	67	76	
1.04	56	57	62	55	60	58	3.08	77	79	76	67	77	
1.08	56	57	63	56	60	59	3.12	77	79	76	67	77	
1.12	56	58	63	56	61	59	3.16	78	80	77	68	78	
1.16	57	58	63	56	61	60	3.20	78	80	78	68	78	
1.20	57	58	64	56	62	60	3.24	78	80	78	69	78	
1.24	58	59	64	57	62	60	3.28	79	80	79	69	79	
1.28	58	59	65	57	62	61	3.32			79	69	79	
1.32	58	60	65	57	63	61	3.36			80	69	80	
1.36	59	60	66	57	63	62	3.40					70	
1.40	59	60	66	57	63	62	3.44					70	
1.44	60	61	66	58	64	63	3.48					70	
1.48	60	61	66	58	64	63	3.52					70	
1.52	60	61	66	58	64	63	3.56					70	
1.56	61	62	67	58	64	64	3.60					70	
1.60	61	62	67	58	64	65	3.64					71	
1.64	62	63	67	59	64	66	3.68					71	
1.68	62	63	67	59	65	66	3.72					71	
1.72	63	64	67	59	65	66	3.76					72	
1.76	63	64	68	59	65	67	3.80					73	
1.80	63	64	68	59	65	68	3.84					74	
1.84	63	65	68	59	65	68	3.88					76	
1.88	64	65	68	59	65	68	3.92					77	
1.92	64	65	68	60	65	69	3.96					79	
1.96	64	66	69	61	66	70	4.00					80	
2.00	64	66	69	62	67	71							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Female Patients: N=402 Average Severity for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	33	28	47	44	43	21	2.52	59	62	65	57	62	61
1.00	42	39	55	50	49	32	2.56	59	62	65	57	62	62
1.04	42	40	55	50	49	32	2.60	60	62	65	57	62	62
1.08	42	41	55	50	49	34	2.64	60	63	65	57	62	63
1.12	42	42	55	50	49	37	2.68	61	63	65	57	62	63
1.16	43	43	55	50	50	37	2.72	61	63	66	57	63	64
1.20	43	44	55	50	50	38	2.76	62	64	66	57	63	64
1.24	44	45	55	50	50	39	2.80	62	64	66	58	64	64
1.28	45	45	55	50	51	40	2.84	63	64	66	58	64	64
1.32	45	46	56	51	51	42	2.88	63	65	67	58	64	65
1.36	46	47	56	51	52	43	2.92	64	65	67	58	64	67
1.40	46	48	56	51	52	44	2.96	64	65	67	59	65	67
1.44	47	49	56	51	52	44	3.00	65	66	67	59	65	68
1.48	47	49	57	51	53	45	3.04	65	66	67	59	65	68
1.52	48	50	57	52	54	46	3.08	66	66	67	60	65	69
1.56	49	51	57	52	54	47	3.12	66	67	68	60	65	69
1.60	49	51	57	52	54	48	3.16	67	67	68	60	66	70
1.64	50	52	57	52	55	49	3.20	67	67	68	60	66	70
1.68	50	52	58	52	55	49	3.24	67	68	68	60	66	71
1.72	51	53	58	53	55	50	3.28	68	68	68	60	66	71
1.76	51	53	58	53	55	51	3.32	69	68	68	61	66	71
1.80	52	53	59	53	56	51	3.36	70	69	69	61	66	72
1.84	52	54	59	53	56	51	3.40	70	69	69	61	67	72
1.88	53	54	59	54	56	52	3.44	71	69	69	61	67	73
1.92	53	55	60	54	57	53	3.48	72	70	69	61	67	74
1.96	54	55	61	55	58	53	3.52	73	71	70	61	67	74
2.00	55	56	62	55	59	54	3.56	75	71	70	62	67	74
2.04	55	56	62	55	59	54	3.60	75	71	70	62	67	74
2.08	55	57	62	55	59	55	3.64	76	72	70	62	67	77
2.12	56	58	62	55	59	56	3.68	77	72	71	62	69	78
2.16	56	58	62	55	59	56	3.72	77	72	72	62	69	79
2.20	56	58	63	56	60	57	3.76	78	73	73	62	69	79
2.24	57	59	63	56	60	58	3.80	78	73	74	62	70	79
2.28	57	59	63	56	60	58	3.84	79	74	75	63	70	80
2.32	57	59	63	56	60	59	3.88	79	75	77	68	70	80
2.36	58	59	63	56	61	59	3.92	79	77	78	72	71	
2.40	58	60	63	56	61	60	3.96	80	78	79	76	75	
2.44	58	61	64	56	61	60	4.00	80	80	80	80	80	
2.48	59	61	64	57	62	61							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

CARES

Standard Score Norms for All Female Patients: N=402 Number of Problems Endorsed for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES	Raw Score	T Phy	T Psy	T Med	T Sex	T ^a Mar	T CARES
0	33	28	47	44	43	21	47						55
1	36	31	50	50	45	25	48						55
2	39	33	55	53	47	27	49						56
3	41	35	57	55	49	29	50						56
4	43	36	58	58	51	30	51						56
5	44	38	60	60	52	31	52						56
6	46	39	62	62	54	31	53						57
7	47	40	63	66	56	33	54						57
8	48	42	66	80	58	33	55						57
9	50	43	67		60	34	56						58
10	51	44	70		61	35	57						58
11	52	44	80		63	36	58						59
12	54	46			64	37	59						59
13	55	47			66	37	60						59
14	57	48			69	38	61						59
15	58	49			73	38	62						59
16	60	50			77	39	63						60
17	61	51			80	39	64						61
18	62	53				40	65						61
19	63	54				41	66						62
20	66	55				41	67						62
21	68	56				42	68						62
22	70	56				42	69						63
23	71	58				43	70						63
24	73	58				44	71						63
25	80	59				45	72						64
26		60				46	73						64
27		61				46	74						65
28		62				46	75						65
29		63				47	76						66
30		64				47	77						67
31		65				48	78						68
32		66				48	79						69
33		67				49	80						69
34		69				49	81						69
35		69				50	82						70
36		71				50	83						70
37		72				50	84						72
38		75				51	85						72
39		79				51	86						72
40		80				52	87						73
41						52	88						73
42						52	89						73
43						53	90						75
44						53	91						76
45						54	92						78
46						55	93						80

^a Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

Appendix D

Normative Data Tables CARES-SF

CARES-SF

Standard Score Norms for Prostate Cancer Patients: N=283 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	38	38	50	44	50	30	2.04	66	74	72	58	74	74
0.04	40	38	51	44	51	32	2.08	67	75	72	58	74	76
0.08	42	41	52	44	51	35	2.12	67	75	72	58	74	77
0.12	43	42	52	44	52	38	2.16	67	75	72	59	74	77
0.16	44	44	53	44	53	40	2.20	68	76	72	59	75	77
0.20	45	45	54	45	54	42	2.24	68	76	72	59	75	78
0.24	46	46	54	45	54	43	2.28	69	76	73	59	75	78
0.28	47	47	55	45	55	45	2.32	69	77	73	59	75	78
0.32	48	48	55	45	56	46	2.36	70	77	73	59	75	78
0.36	49	50	56	46	56	47	2.40	70	78	73	59	75	79
0.40	50	50	56	46	57	49	2.44	71	78	73	60	75	79
0.44	50	52	57	46	57	50	2.48	72	79	73	60	76	79
0.48	51	52	57	47	58	51	2.52	72	79	73	60	76	79
0.52	52	53	58	47	58	53	2.56	72	80	73	61	76	80
0.56	52	54	58	47	58	54	2.60	72		74	61	76	80
0.60	53	54	59	48	58	55	2.64	73		74	62	76	
0.64	54	55	59	48	61	56	2.68	73		74	62	76	
0.68	55	56	59	48	62	57	2.72	73		74	63	77	
0.72	56	56	60	49	63	57	2.76	73		75	63	77	
0.76	56	57	60	49	63	58	2.80	74		75	63	78	
0.80	57	57	61	49	64	58	2.84	74		75	64	78	
0.84	57	58	61	49	65	59	2.88	74		76	64	79	
0.88	57	58	62	50	65	60	2.92	75		76	64	79	
0.92	57	59	63	50	65	60	2.96	75		77	64	80	
0.96	58	59	63	50	65	60	3.00	75		77	65	80	
1.00	58	60	64	51	65	60	3.04	76		77	65		
1.04	59	60	64	51	66	61	3.08	76		77	65		
1.08	59	61	64	51	66	61	3.12	76		77	65		
1.12	59	61	64	52	66	62	3.16	77		78	65		
1.16	59	61	65	52	67	62	3.20	77		78	65		
1.20	60	62	65	52	67	63	3.24	77		78	65		
1.24	60	62	65	52	67	64	3.28	78		78	65		
1.28	61	63	65	53	67	65	3.32	78		78	66		
1.32	61	63	65	53	68	66	3.36	79		78	66		
1.36	62	64	65	53	68	66	3.40	79		79	66		
1.40	62	64	66	54	68	67	3.44	79		79	67		
1.44	62	64	66	54	69	67	3.48	80		79	67		
1.48	62	65	66	54	69	68	3.52			79	68		
1.52	63	65	66	54	70	69	3.56			79	68		
1.56	63	66	67	55	70	69	3.60			79	68		
1.60	63	66	68	55	70	69	3.64			80	68		
1.64	63	66	68	55	71	70	3.68			80	68		
1.68	63	67	69	56	71	70	3.72			80	70		
1.72	64	67	70	56	71	71	3.76				71		
1.76	64	68	70	56	72	71	3.80				73		
1.80	64	68	71	56	72	72	3.84				74		
1.84	64	68	71	57	72	73	3.88				76		
1.88	65	69	71	57	73	73	3.92				77		
1.92	65	70	71	57	73	74	3.96				79		
1.96	66	71	72	58	73	74	4.00				80		
2.00	66	73	72	58	74	74							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Prostate Cancer Patients: N=283 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	38	38	50	44	50	30	2.52	61	65	65	54	66	63
1.00	46	47	57	48	57	36	2.56	61	65	65	54	66	64
1.04	46	47	57	48	57	37	2.60	62	65	65	54	67	64
1.08	46	47	57	48	57	37	2.64	62	65	65	54	67	64
1.12	46	47	57	48	57	37	2.68	62	66	65	55	67	64
1.16	46	47	57	48	57	38	2.72	62	66	65	55	67	65
1.20	47	49	57	48	57	39	2.76	63	66	65	55	67	66
1.24	47	49	57	48	57	40	2.80	63	66	66	56	67	67
1.28	47	50	57	48	58	41	2.84	64	66	66	56	68	67
1.32	48	51	58	48	58	42	2.88	64	67	66	57	68	68
1.36	48	51	58	48	58	44	2.92	66	68	66	57	68	68
1.40	49	52	59	48	59	44	2.96	67	69	66	57	68	69
1.44	49	52	59	48	59	46	3.00	68	70	67	58	68	69
1.48	50	52	59	49	59	46	3.04	68	70	67	58	68	70
1.52	51	53	59	49	60	47	3.08	68	70	67	58	68	70
1.56	51	53	59	49	60	48	3.12	68	70	67	58	68	70
1.60	52	53	59	49	60	49	3.16	69	71	67	58	68	72
1.64	52	54	60	49	60	49	3.20	70	71	67	58	68	72
1.68	53	54	60	49	60	50	3.24	70	71	67	58	68	73
1.72	54	55	60	49	60	51	3.28	70	72	67	58	68	75
1.76	54	56	60	50	60	52	3.32	71	74	67	58	68	75
1.80	54	56	60	50	60	53	3.36	71	74	67	58	69	75
1.84	54	56	61	50	61	54	3.40	71	75	67	59	69	76
1.88	55	57	61	51	62	54	3.44	72	77	67	59	69	76
1.92	56	57	62	51	63	54	3.48	72	77	67	59	69	77
1.96	57	58	62	51	63	55	3.52	72	77	67	59	69	77
2.00	58	59	63	52	64	56	3.56	73	78	67	59	69	78
2.04	58	59	63	52	64	56	3.60	74	78	67	59	69	78
2.08	58	59	63	52	64	57	3.64	75	78	68	60	70	79
2.12	58	59	63	52	64	58	3.68	77	78	68	60	71	79
2.16	58	60	64	52	64	58	3.72	77	78	68	63	72	80
2.20	59	61	64	52	64	59	3.76	78	79	69	65	73	
2.24	59	61	64	52	65	59	3.80	78	79	70	68	74	
2.28	59	62	64	52	65	60	3.84	79	79	72	70	76	
2.32	60	62	64	52	66	61	3.88	79	79	74	73	77	
2.36	60	63	64	52	66	61	3.92	79	80	76	75	78	
2.40	60	63	64	53	66	62	3.96	80	80	78	78	79	
2.44	61	63	65	53	66	62	4.00	80	80	80	80	80	
2.48	61	64	65	54	66	62							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Prostate Cancer Patients: N=283
Number of Problems Endorsed Scores for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	38	38	50	44	50	30
1	44	42	57	53	55	31
2	48	45	62	63	59	35
3	51	48	70	80	64	38
4	55	51	80		69	39
5	58	53			80	40
6	62	56				42
7	64	59				44
8	69	62				46
9	77	64				47
10	80	66				49
11		69				50
12		71				51
13		77				52
14		80				53
15						55
16						56
17						57
18						58
19						59
20						59
21						60
22						61
23						62
24						63
25						65
26						66
27						67
28						69
29						70
30						71
31						75
32						77
33						80

^a *Marital Norms were calculated on a smaller sample (N=231) since not all patients were in a significant relationship.*

CARES-SF

Standard Score Norms for Breast Cancer Patients: N=178 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	30	49	44	45	25	2.04	67	66	71	61	70	71
0.04	37	31	50	44	46	27	2.08	67	66	72	61	70	72
0.08	39	34	51	45	47	31	2.12	68	67	72	61	71	72
0.12	41	35	51	45	48	35	2.16	68	68	72	62	71	72
0.16	42	37	52	45	49	37	2.20	68	69	73	62	72	72
0.20	43	39	53	45	50	38	2.24	68	70	73	62	72	72
0.24	44	40	54	46	51	40	2.28	69	71	73	62	73	73
0.28	45	42	54	46	51	42	2.32	69	72	73	62	74	73
0.32	46	44	55	46	52	43	2.36	69	73	73	62	74	74
0.36	47	45	56	47	53	44	2.40	69	73	74	62	75	75
0.40	47	46	56	47	54	45	2.44	69	73	74	62	76	75
0.44	48	46	57	48	54	46	2.48	69	73	74	62	77	76
0.48	49	47	57	49	55	47	2.52	70	74	74	62	77	77
0.52	49	48	58	49	55	48	2.56	70	74	74	63	78	77
0.56	50	49	58	50	56	49	2.60	70	74	75	63	79	78
0.60	51	49	58	50	57	50	2.64	70	74	75	63	79	78
0.64	51	50	59	50	57	51	2.68	71	74	75	63		79
0.68	52	50	59	51	58	52	2.72	71	75	75	63		79
0.72	52	51	59	51	58	52	2.76	72	75	75	63		80
0.76	53	51	60	52	58	53	2.80	72	75	76	63		
0.80	53	52	60	52	58	55	2.84	72	75	76	64		
0.84	54	52	61	53	58	55	2.88	73	75	76	64		
0.88	54	54	61	53	59	56	2.92	73	76	76	64		
0.92	54	54	61	54	60	56	2.96	74	76	77	64		
0.96	55	54	62	54	60	56	3.00	74	76	77	65		
1.00	55	55	62	55	61	57	3.04	75	77	77	65		
1.04	56	55	62	55	62	58	3.08	75	77	77	65		
1.08	56	56	63	55	62	58	3.12	76	77	78	65		
1.12	57	57	63	55	63	59	3.16	76	78	78	65		
1.16	57	57	63	55	64	59	3.20	77	78	78	65		
1.20	57	57	63	55	65	60	3.24	77	78	78	65		
1.24	57	58	64	55	65	61	3.28	77	78	79	65		
1.28	58	58	64	55	65	62	3.32	78	79	79	65		
1.32	59	58	65	55	66	63	3.36	78	79	79	65		
1.36	59	59	65	55	66	63	3.40	79	79	79	65		
1.40	60	60	66	55	66	64	3.44	79	80	80	65		
1.44	61	60	67	56	66	65	3.48	80	80	80	65		
1.48	61	61	67	56	66	65	3.52				65		
1.52	62	62	68	56	66	66	3.56				66		
1.56	62	62	68	56	67	66	3.60				66		
1.60	62	63	68	57	67	66	3.64				66		
1.64	63	63	68	57	67	67	3.68				66		
1.68	64	63	68	57	67	67	3.72				68		
1.72	65	64	68	58	67	67	3.76				70		
1.76	65	64	68	58	67	68	3.80				71		
1.80	65	65	69	59	67	69	3.84				73		
1.84	66	65	69	59	67	70	3.88				75		
1.88	66	65	70	60	68	70	3.92				77		
1.92	67	65	70	60	68	71	3.96				78		
1.96	67	65	71	61	69	71	4.00				80		
2.00	67	66	71	61	70	71							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Breast Cancer Patients: N=178 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	30	49	44	45	25	2.52	62	64	65	59	63	63
1.00	46	44	57	52	52	37	2.56	62	64	65	59	63	63
1.04	46	44	57	52	52	37	2.60	62	64	65	60	63	64
1.08	46	44	57	52	52	38	2.64	63	64	65	60	63	64
1.12	46	44	57	52	52	39	2.68	63	65	65	60	63	65
1.16	47	45	57	52	52	41	2.72	63	65	65	60	63	66
1.20	47	46	57	52	52	41	2.76	63	65	65	60	63	67
1.24	48	47	57	52	53	42	2.80	64	65	65	61	64	67
1.28	48	48	57	52	53	43	2.84	64	66	66	61	64	67
1.32	49	49	58	52	53	43	2.88	64	66	66	61	64	67
1.36	50	49	58	52	53	44	2.92	65	66	66	62	64	68
1.40	50	50	58	53	54	45	2.96	65	66	67	62	65	68
1.44	50	50	58	53	54	47	3.00	65	67	67	62	65	68
1.48	51	51	58	53	55	47	3.04	66	67	67	62	65	69
1.52	51	51	58	53	55	48	3.08	66	68	67	63	65	69
1.56	52	51	58	54	56	49	3.12	66	69	67	63	65	70
1.60	52	52	59	54	56	49	3.16	67	69	67	63	65	71
1.64	52	52	59	54	56	50	3.20	68	70	67	63	66	72
1.68	53	52	59	54	56	51	3.24	69	70	67	63	66	72
1.72	54	52	59	54	56	52	3.28	69	71	67	63	66	73
1.76	54	53	59	55	57	53	3.32	70	71	67	63	66	73
1.80	55	53	60	55	57	53	3.36	70	72	67	63	67	75
1.84	55	53	61	56	58	54	3.40	70	72	67	63	67	76
1.88	56	54	61	56	59	55	3.44	71	72	68	63	68	77
1.92	56	55	62	57	60	55	3.48	72	73	68	63	68	77
1.96	57	56	63	57	60	56	3.52	73	74	68	63	69	78
2.00	58	56	63	57	61	57	3.56	74	75	69	63	70	79
2.04	58	56	63	57	61	57	3.60	74	76	70	63	71	80
2.08	58	57	64	58	61	57	3.64	75	78	71	63	72	
2.12	58	57	64	58	62	58	3.68	75	79	72	64	73	
2.16	58	58	64	58	62	59	3.72	76		73	66	73	
2.20	59	59	64	58	62	59	3.76	77		74	68	74	
2.24	59	59	64	58	62	60	3.80	77		75	70	75	
2.28	59	60	64	58	62	60	3.84	78		76	72	76	
2.32	59	60	64	58	62	61	3.88	78		77	74	77	
2.36	60	61	64	58	63	62	3.92	79		78	76	78	
2.40	60	61	64	59	63	63	3.96	79		79	78	79	
2.44	61	62	64	59	63	63	4.00	80		80	80	80	
2.48	62	63	64	59	63	63							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Breast Cancer Patients: N=178
Number of Problems Endorsed Scores for 6 Summary Scales

Raw Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	35	30	49	44	45	25
1	41	35	57	52	51	27
2	45	39	62	61	56	29
3	48	41	65	80	62	33
4	50	44	80		70	34
5	54	47			80	36
6	58	49				38
7	62	52				38
8	65	55				40
9	71	57				42
10	80	61				43
11		62				45
12		64				45
13		68				47
14		73				48
15		74				49
16		75				50
17		80				50
18						52
19						53
20						54
21						55
22						56
23						57
24						57
25						59
26						60
27						61
28						62
29						63
30						64
31						65
32						68
33						68
34						73
35						74
36						75
37						75
38						80

^a Marital Norms were calculated on a smaller sample (N=119) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	36	35	50	44	48	28	2.04	63	69	70	59	70	72
0.04	38	37	50	44	49	32	2.08	63	69	71	59	71	72
0.08	40	39	51	45	50	34	2.12	63	69	71	59	71	72
0.12	41	40	52	45	51	35	2.16	64	69	71	59	71	73
0.16	41	42	52	45	52	39	2.20	64	70	71	59	71	74
0.20	42	43	53	45	53	41	2.24	64	70	71	59	72	75
0.24	43	44	54	46	54	42	2.28	65	71	71	59	72	77
0.28	44	46	54	46	54	43	2.32	65	71	72	59	72	78
0.32	45	46	55	46	55	45	2.36	66	71	72	60	73	78
0.36	45	48	55	46	56	46	2.40	66	71	72	60	74	79
0.40	46	48	55	46	56	47	2.44	66	71	72	60	74	79
0.44	46	49	56	47	57	48	2.48	67	72	72	60	75	80
0.48	47	50	56	47	57	48	2.52	67	72	73	61	75	
0.52	48	51	56	47	58	49	2.56	68	73	73	61	75	
0.56	48	51	57	48	58	50	2.60	69	75	73	61	75	
0.60	49	52	57	48	59	50	2.64	69	76	73	62	76	
0.64	49	53	57	48	60	51	2.68	69	76	74	62	76	
0.68	50	53	57	49	60	52	2.72	70	76	74	62	76	
0.72	50	54	57	49	61	52	2.76	70	77	75	63	76	
0.76	51	54	58	50	61	53	2.80	70	77	75	63	76	
0.80	51	55	58	50	61	54	2.84	71	77	75	63	76	
0.84	52	55	59	50	62	54	2.88	72	77	75	63	76	
0.88	52	56	59	51	62	55	2.92	72	78	75	64	77	
0.92	52	56	60	51	62	56	2.96	73	78	75	64	77	
0.96	53	57	60	52	63	56	3.00	73	78	75	64	77	
1.00	54	58	61	52	63	57	3.04	74	79	75	64	77	
1.04	54	58	61	52	63	58	3.08	75	79	75	65	77	
1.08	55	59	61	52	63	58	3.12	76	80	75	65	77	
1.12	55	59	61	52	64	59	3.16	77		75	65	77	
1.16	55	60	62	53	64	59	3.20	77		75	65	78	
1.20	55	60	62	53	64	60	3.24	78		75	65	79	
1.24	56	61	62	53	64	61	3.28	78		75	66	79	
1.28	56	61	63	53	65	61	3.32	78		76	66	80	
1.32	57	61	63	53	65	62	3.36	79		76	66		
1.36	57	62	64	54	65	63	3.40	79		76	66		
1.40	57	62	64	54	65	63	3.44	79		76	67		
1.44	58	62	65	54	65	63	3.48	79		76	67		
1.48	58	63	65	54	66	64	3.52	80		76	68		
1.52	58	64	66	54	66	65	3.56	80		76	68		
1.56	59	65	66	55	66	66	3.60	80		77	68		
1.60	59	65	66	55	67	66	3.64			77	68		
1.64	59	65	67	55	67	67	3.68			78	69		
1.68	60	65	67	56	68	67	3.72			78	70		
1.72	60	66	67	56	68	68	3.76			78	72		
1.76	61	66	68	56	69	68	3.80			79	73		
1.80	61	67	68	57	69	69	3.84			79	74		
1.84	61	67	68	57	70	70	3.88			79	76		
1.88	61	68	69	58	70	71	3.92			79	77		
1.92	62	68	69	58	70	71	3.96			80	79		
1.96	62	68	70	58	70	72	4.00			80	80		
2.00	63	68	70	59	70	72							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	36	35	50	44	48	28	2.52	59	63	64	57	63	61
1.00	43	45	57	49	55	37	2.56	59	63	64	57	63	61
1.04	43	45	57	49	55	37	2.60	59	63	65	57	63	62
1.08	43	45	57	49	55	38	2.64	60	63	65	57	64	62
1.12	43	45	57	49	55	38	2.68	60	63	65	57	64	63
1.16	44	46	57	49	55	39	2.72	60	63	65	57	64	63
1.20	44	47	57	49	55	41	2.76	61	64	65	58	64	64
1.24	45	47	57	49	56	41	2.80	62	64	66	58	65	64
1.28	45	48	57	49	56	42	2.84	62	65	66	59	65	65
1.32	46	49	58	49	57	43	2.88	62	65	66	59	65	65
1.36	46	49	58	49	57	43	2.92	63	65	67	59	66	66
1.40	47	49	58	50	57	44	2.96	64	66	67	60	66	66
1.44	47	50	58	50	57	45	3.00	65	67	67	60	67	67
1.48	48	51	59	50	58	46	3.04	65	68	67	60	67	67
1.52	48	52	59	51	58	47	3.08	65	68	67	61	67	68
1.56	48	52	59	51	58	48	3.12	65	68	67	61	67	68
1.60	49	53	59	51	58	48	3.16	65	69	67	61	67	69
1.64	49	53	59	51	58	49	3.20	66	69	67	61	67	70
1.68	50	54	59	51	59	49	3.24	67	70	67	61	68	70
1.72	50	54	59	52	59	50	3.28	68	71	67	61	68	71
1.76	51	55	60	52	59	50	3.32	68	71	67	61	69	72
1.80	51	55	60	53	59	51	3.36	69	72	67	61	70	72
1.84	52	56	61	53	59	52	3.40	69	73	68	62	70	74
1.88	52	56	61	53	60	52	3.44	69	74	68	62	71	75
1.92	53	57	61	54	60	53	3.48	70	75	68	62	71	76
1.96	54	58	62	54	61	53	3.52	70	76	68	62	72	76
2.00	55	59	62	55	61	54	3.56	71	77	68	63	72	77
2.04	55	59	62	55	61	54	3.60	71	77	68	63	72	77
2.08	55	59	62	55	62	55	3.64	72	78	68	63	72	77
2.12	55	59	62	55	62	55	3.68	72	78	68	63	72	78
2.16	55	60	62	55	62	56	3.72	73	78	68	66	72	78
2.20	56	60	62	55	62	56	3.76	73	79	69	68	73	78
2.24	56	60	63	55	62	57	3.80	73	79	71	70	74	79
2.28	56	60	63	55	62	58	3.84	73	79	73	72	75	79
2.32	57	60	63	55	62	58	3.88	73	79	74	74	76	79
2.36	57	61	63	55	62	59	3.92	76	80	76	76	77	79
2.40	57	61	63	56	63	59	3.96	78	80	78	78	79	80
2.44	58	61	64	56	63	60	4.00	80	80	80	80	80	80
2.48	59	62	64	56	63	60							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Male Non-Prostate Cancer Patients: N=418
Number of Problems Endorsed Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	36	35	50	44	48	28
1	42	40	55	51	54	31
2	44	43	60	61	59	34
3	47	46	65	80	63	36
4	50	49	80		67	37
5	54	51			72	38
6	56	53			80	40
7	60	55				42
8	63	57				44
9	70	59				45
10	80	62				46
11		65				47
12		67				48
13		70				49
14		74				50
15		80				50
16						51
17						52
18						53
19						54
20						55
21						55
22						56
23						57
24						58
25						59
26						60
27						61
28						62
29						63
30						64
31						65
32						67
33						68
34						69
35						70
36						73
37						73
38						74
39						76
40						78
41						79
42						80

^a Marital Norms were calculated on a smaller sample (N=330) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Female Non-Breast Patients: N=224 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	36	33	49	45	46	26	2.04	60	64	68	59	66	67
0.04	37	33	50	46	47	30	2.08	60	64	68	59	67	68
0.08	38	37	51	46	48	32	2.12	61	65	68	59	67	69
0.12	39	38	51	46	49	34	2.16	61	65	68	59	68	70
0.16	40	39	52	46	50	37	2.20	61	65	68	59	68	70
0.20	42	41	53	46	51	37	2.24	62	65	69	59	69	71
0.24	43	42	54	46	51	38	2.28	62	66	69	59	69	72
0.28	43	43	54	47	52	40	2.32	62	66	69	59	70	73
0.32	44	43	55	47	53	42	2.36	63	66	70	59	70	74
0.36	45	44	55	47	53	43	2.40	63	67	70	59	70	75
0.40	46	45	55	47	53	44	2.44	64	67	70	59	71	76
0.44	46	45	56	48	54	46	2.48	64	67	71	60	71	77
0.48	47	47	56	48	54	46	2.52	64	68	71	60	71	78
0.52	47	48	56	48	55	47	2.56	65	68	71	60	71	79
0.56	47	49	57	49	55	48	2.60	66	68	71	60	71	80
0.60	48	50	57	49	56	49	2.64	66	69	72	60	72	
0.64	48	51	57	49	56	50	2.68	66	70	72	61	72	
0.68	49	51	58	50	57	51	2.72	67	70	72	61	72	
0.72	49	52	58	50	57	51	2.76	67	70	72	61	72	
0.76	50	52	58	50	58	52	2.80	67	71	72	61	72	
0.80	50	52	59	50	59	53	2.84	68	71	73	61	73	
0.84	50	52	59	51	59	53	2.88	68	71	73	62	73	
0.88	51	53	59	51	59	54	2.92	68	71	73	62	73	
0.92	51	53	60	51	60	54	2.96	69	72	73	62	73	
0.96	51	54	60	52	60	54	3.00	69	72	74	62	73	
1.00	52	55	60	52	60	55	3.04	70	73	74	62	74	
1.04	52	55	61	52	60	56	3.08	70	76	75	63	74	
1.08	52	55	61	52	60	57	3.12	71	77	75	63	74	
1.12	53	56	61	52	60	57	3.16	72	77	76	63	74	
1.16	53	56	62	53	61	57	3.20	74	77	76	63	75	
1.20	54	57	62	53	61	58	3.24	74	77	77	63	77	
1.24	54	57	62	53	61	58	3.28	74	78	77	63	78	
1.28	54	57	62	53	61	58	3.32	74	78	78	63	80	
1.32	55	58	63	53	62	59	3.36	75	78	78	63		
1.36	55	58	63	53	62	59	3.40	75	79	79	64		
1.40	56	58	63	54	62	59	3.44	75	79	79	64		
1.44	56	58	63	54	62	60	3.48	75	79	80	64		
1.48	56	59	63	54	63	60	3.52	76	80		64		
1.52	57	60	64	54	63	61	3.56	76	80		65		
1.56	57	60	64	55	63	61	3.60	76			65		
1.60	58	61	64	55	64	62	3.64	78			65		
1.64	58	61	65	55	64	62	3.68	79			65		
1.68	58	61	65	55	64	62	3.72				67		
1.72	59	62	65	56	65	63	3.76				69		
1.76	59	62	66	56	65	63	3.80				71		
1.80	59	62	66	56	65	64	3.84				73		
1.84	59	63	66	57	65	64	3.88				75		
1.88	59	63	67	57	65	65	3.92				76		
1.92	59	63	67	58	65	65	3.96				78		
1.96	60	64	67	58	65	65	4.00				80		
2.00	60	64	67	59	65	66							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Female Non-Breast Cancer Patients: N=224 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	36	33	49	45	46	26	2.52	57	60	64	56	63	59
1.00	43	43	56	50	52	35	2.56	57	60	65	56	63	59
1.04	43	43	56	50	53	35	2.60	57	61	65	56	63	60
1.08	43	43	56	50	53	36	2.64	58	61	65	56	63	60
1.12	43	44	56	50	53	37	2.68	58	61	65	56	64	60
1.16	43	44	56	50	53	37	2.72	59	62	65	56	64	61
1.20	43	45	56	50	53	38	2.76	59	62	65	56	64	61
1.24	44	45	56	50	53	40	2.80	59	62	66	57	64	61
1.28	44	46	56	50	54	41	2.84	60	63	67	57	64	62
1.32	45	47	57	50	54	41	2.88	60	63	67	57	64	62
1.36	45	47	57	51	54	42	2.92	61	63	68	58	64	64
1.40	46	48	57	51	54	43	2.96	62	64	68	58	64	65
1.44	46	48	57	51	55	43	3.00	63	64	69	58	64	65
1.48	47	49	58	51	55	44	3.04	64	65	69	58	64	65
1.52	47	49	58	52	56	45	3.08	64	65	69	58	65	66
1.56	47	50	58	52	56	47	3.12	64	65	69	59	65	66
1.60	48	50	58	52	56	47	3.16	65	65	69	59	65	66
1.64	49	50	58	52	57	48	3.20	65	66	69	59	65	67
1.68	49	50	58	52	57	48	3.24	66	66	69	59	65	67
1.72	50	51	58	52	57	49	3.28	67	66	69	59	65	68
1.76	50	52	58	53	57	49	3.32	68	66	69	59	65	69
1.80	51	52	59	53	58	50	3.36	68	66	70	59	65	69
1.84	51	52	59	53	58	50	3.40	69	67	70	59	66	70
1.88	52	53	60	54	59	51	3.44	69	67	71	59	66	70
1.92	52	54	60	54	59	51	3.48	69	68	72	59	66	70
1.96	53	54	61	54	59	52	3.52	70	68	72	60	66	71
2.00	54	55	61	55	60	53	3.56	71	68	73	60	66	71
2.04	54	55	61	55	60	53	3.60	76	68	74	60	66	71
2.08	54	55	61	55	60	53	3.64	78	70	74	60	67	73
2.12	54	56	61	55	60	54	3.68	79	71	75	61	67	74
2.16	54	56	61	55	60	55	3.72		72	76	63	67	75
2.20	55	57	61	55	60	55	3.76		72	76	65	67	76
2.24	55	57	61	55	61	55	3.80		73	77	68	67	77
2.28	55	58	62	55	61	56	3.84		75	77	70	70	77
2.32	55	58	62	55	61	56	3.88		77	78	73	72	78
2.36	56	58	63	55	61	57	3.92		78	79	75	75	79
2.40	56	59	63	55	62	57	3.96		79	79	78	77	79
2.44	57	59	64	55	62	58	4.00		80	80	80	80	80
2.48	57	60	64	55	62	59							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for Female Non-Breast Cancer Patients: N=224
Number of Problems Endorsed Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	36	33	49	45	46	26
1	40	37	56	52	52	31
2	43	41	60	60	56	32
3	46	44	65	80	59	33
4	49	46	80		66	36
5	51	48			80	36
6	56	50				38
7	59	53				38
8	62	56				40
9	67	57				41
10	80	61				42
11		64				45
12		65				46
13		67				48
14		71				49
15		74				50
16		80				51
17						51
18						53
19						53
20						54
21						55
22						56
23						56
24						57
25						57
26						58
27						60
28						60
29						61
30						62
31						63
32						63
33						65
34						67
35						69
36						72
37						76
38						77
39						79
40						80

^a Marital Norms were calculated on a smaller sample (N=132) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Male Patients: N=701 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	37	36	50	44	49	29	2.04	64	70	71	58	71	73
0.04	39	37	51	44	50	32	2.08	64	70	71	59	71	73
0.08	40	40	51	44	51	34	2.12	64	70	71	59	72	73
0.12	42	41	52	45	52	36	2.16	65	71	71	59	72	74
0.16	43	43	53	45	53	39	2.20	65	71	71	59	72	75
0.20	43	44	53	45	53	41	2.24	66	72	71	59	72	76
0.24	44	45	54	45	54	42	2.28	66	72	72	59	73	77
0.28	45	46	54	45	55	44	2.32	67	72	72	59	73	77
0.32	46	47	55	46	55	45	2.36	67	72	72	59	73	78
0.36	47	49	55	46	56	46	2.40	68	73	72	60	74	78
0.40	47	49	56	46	57	48	2.44	68	73	72	60	74	79
0.44	47	50	56	47	57	49	2.48	68	73	73	60	74	79
0.48	48	51	57	47	58	50	2.52	69	73	73	61	75	80
0.52	49	52	57	47	58	51	2.56	69	74	73	61	75	80
0.56	50	52	57	47	58	51	2.60	70	77	73	61	75	80
0.60	50	53	57	48	58	52	2.64	70	78	73	62	75	
0.64	51	54	58	48	60	53	2.68	70	78	73	62	76	
0.68	52	54	58	49	61	54	2.72	71	78	74	62	76	
0.72	52	55	58	49	61	54	2.76	71	78	75	63	76	
0.76	53	55	59	49	62	55	2.80	71	79	75	63	76	
0.80	53	56	59	50	62	55	2.84	72	79	75	63	76	
0.84	54	56	60	50	63	56	2.88	72	79	75	64	76	
0.88	54	57	60	50	63	57	2.92	73	79	75	64	77	
0.92	54	57	61	51	63	57	2.96	73	80	75	64	77	
0.96	55	58	61	51	64	58	3.00	74	80	75	64	77	
1.00	55	58	62	51	64	58	3.04	74	80	75	65	77	
1.04	56	59	62	52	64	59	3.08	75	80	75	65	78	
1.08	56	60	62	52	64	59	3.12	75	80	76	65	78	
1.12	56	60	63	52	65	60	3.16	76		76	65	79	
1.16	57	60	63	52	65	60	3.20	76		76	65	79	
1.20	57	61	63	53	65	61	3.24	77		76	65	80	
1.24	57	61	63	53	65	62	3.28	77		76	65	80	
1.28	58	62	64	53	66	63	3.32	78		76	66	80	
1.32	58	62	64	53	66	63	3.36	78		76	66		
1.36	59	62	64	53	66	64	3.40	79		76	66		
1.40	59	62	65	54	66	64	3.44	79		76	67		
1.44	59	63	65	54	67	64	3.48	80		76	67		
1.48	60	63	66	54	67	65	3.52	80		77	68		
1.52	60	64	66	54	67	66	3.56	80		77	68		
1.56	60	65	66	55	67	67	3.60	80		78	68		
1.60	60	65	67	55	68	67	3.64			78	68		
1.64	61	65	67	55	68	68	3.68			79	69		
1.68	61	66	68	56	68	68	3.72			79	70		
1.72	62	67	68	56	69	69	3.76			80	72		
1.76	62	67	69	56	70	69	3.80			80	73		
1.80	62	67	69	57	70	70	3.84			80	74		
1.84	62	67	69	57	71	71	3.88			80	76		
1.88	63	68	70	57	71	71	3.92			80	77		
1.92	63	68	70	58	71	72	3.96			80	79		
1.96	63	69	70	58	71	72	4.00			80	80		
2.00	64	70	71	58	71	72							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Male Patients: N=701 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	37	36	50	44	49	29	2.52	60	63	65	55	64	62
1.00	44	46	57	48	56	37	2.56	60	64	65	56	64	62
1.04	45	46	57	48	56	37	2.60	60	64	65	56	64	62
1.08	45	46	57	48	56	37	2.64	61	64	65	56	65	63
1.12	45	46	57	48	56	38	2.68	61	64	65	56	65	64
1.16	45	46	57	48	56	39	2.72	61	64	65	56	65	64
1.20	45	47	57	48	56	40	2.76	62	65	65	57	65	64
1.24	46	48	57	48	56	41	2.80	62	65	66	57	66	65
1.28	46	49	57	48	57	42	2.84	63	65	66	58	66	65
1.32	47	50	58	49	57	43	2.88	63	65	66	58	66	66
1.36	47	50	58	49	57	43	2.92	64	66	66	58	67	67
1.40	47	50	58	49	57	44	2.96	65	67	67	59	67	67
1.44	48	51	59	49	58	45	3.00	66	68	67	59	67	68
1.48	49	51	59	50	58	46	3.04	66	68	67	59	67	68
1.52	49	52	59	50	59	47	3.08	66	68	67	59	68	68
1.56	49	52	59	50	59	48	3.12	66	69	67	59	68	69
1.60	50	53	59	50	59	48	3.16	67	69	67	60	68	70
1.64	50	53	59	50	59	49	3.20	67	69	67	60	68	71
1.68	51	54	59	50	59	50	3.24	68	70	67	60	68	71
1.72	51	55	60	51	59	50	3.28	69	71	67	60	68	72
1.76	52	55	60	51	59	51	3.32	69	72	67	60	69	73
1.80	52	56	60	51	59	52	3.36	69	72	67	60	69	73
1.84	53	56	61	52	60	52	3.40	69	73	67	60	69	74
1.88	53	56	61	52	60	53	3.44	70	74	67	61	70	75
1.92	54	57	62	53	61	53	3.48	70	76	67	61	70	76
1.96	55	58	62	53	62	54	3.52	71	76	68	61	70	76
2.00	56	59	63	53	62	55	3.56	71	77	68	61	70	77
2.04	56	59	63	53	62	55	3.60	72	77	68	61	70	77
2.08	56	59	63	53	63	56	3.64	73	77	68	61	70	77
2.12	56	59	63	54	63	56	3.68	73	78	68	62	70	77
2.16	56	60	63	54	63	57	3.72	74	78	68	64	71	78
2.20	57	60	63	54	63	57	3.76	74	78	69	66	71	80
2.24	57	60	63	54	63	58	3.80	74	79	71	69	71	80
2.28	57	61	63	54	63	59	3.84	74	79	72	71	73	80
2.32	58	61	63	54	63	59	3.88	75	79	74	73	75	80
2.36	58	61	64	54	64	60	3.92	76	79	76	75	76	80
2.40	58	62	64	54	64	60	3.96	78	80	78	78	78	80
2.44	59	62	64	55	64	61	4.00	80	80	80	80	80	80
2.48	59	63	64	55	64	61							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Male Patients: N=701
Number of Problems Endorsed Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	37	36	50	44	49	29
1	43	41	56	52	55	31
2	46	44	60	61	59	34
3	49	47	66	80	63	36
4	52	50	80		68	38
5	55	52			74	39
6	58	54			80	41
7	61	57				43
8	65	59				44
9	72	61				46
10	80	63				47
11		66				48
12		68				49
13		72				50
14		76				51
15		80				52
16						53
17						54
18						55
19						56
20						56
21						57
22						58
23						59
24						60
25						61
26						62
27						63
28						64
29						65
30						66
31						68
32						69
33						70
34						71
35						72
36						75
37						75
38						76
39						78
40						80
41						80
42						80

^a Marital Norms were calculated on a smaller sample (N=561) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Female Patients: N=402 Global Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	32	49	45	46	26	2.04	62	65	69	60	68	69
0.04	37	32	50	45	47	29	2.08	63	65	69	60	68	69
0.08	38	36	51	45	48	31	2.12	63	65	69	60	69	70
0.12	40	37	51	45	49	34	2.16	63	66	70	60	69	70
0.16	41	39	52	46	50	37	2.20	64	66	70	60	70	71
0.20	42	40	53	46	50	38	2.24	64	67	70	60	70	71
0.24	43	41	54	46	51	39	2.28	64	67	70	60	71	72
0.28	44	42	54	46	52	41	2.32	64	68	71	60	71	72
0.32	45	43	55	46	52	42	2.36	65	68	71	60	72	73
0.36	46	45	55	47	53	44	2.40	65	69	71	61	72	74
0.40	46	45	56	47	54	45	2.44	65	69	71	61	72	75
0.44	47	46	56	48	54	46	2.48	66	69	72	61	73	76
0.48	48	47	57	48	55	47	2.52	66	69	72	61	73	77
0.52	48	48	57	49	55	48	2.56	67	69	72	61	73	77
0.56	49	49	57	49	56	49	2.60	67	70	72	61	74	78
0.60	49	50	58	49	56	50	2.64	67	70	73	61	74	78
0.64	50	50	58	50	57	51	2.68	68	71	73	61	74	79
0.68	50	50	58	50	57	51	2.72	68	71	73	62	74	79
0.72	51	51	58	50	58	52	2.76	68	72	73	62	75	80
0.76	51	51	59	51	58	53	2.80	68	72	73	62	75	
0.80	52	52	59	51	59	54	2.84	69	72	74	62	75	
0.84	52	52	60	52	59	54	2.88	69	73	74	63	75	
0.88	52	53	60	52	59	54	2.92	70	73	74	63	75	
0.92	52	53	60	52	60	55	2.96	70	73	74	63	76	
0.96	53	54	61	53	60	55	3.00	71	73	74	63	76	
1.00	53	55	61	53	60	56	3.04	71	74	75	63	76	
1.04	54	55	61	53	61	57	3.08	71	76	75	63	76	
1.08	54	56	62	53	61	57	3.12	72	76	76	63	76	
1.12	54	56	62	53	62	58	3.16	73	76	76	64	76	
1.16	55	57	62	54	62	58	3.20	74	76	77	64	77	
1.20	55	57	63	54	62	59	3.24	75	77	77	64	78	
1.24	55	57	63	54	63	59	3.28	75	77	78	64	79	
1.28	56	58	63	54	63	60	3.32	75	77	78	64	80	
1.32	56	58	63	54	63	60	3.36	75	77	78	64		
1.36	57	58	64	54	63	60	3.40	75	78	79	64		
1.40	58	59	64	54	64	61	3.44	75	78	79	64		
1.44	58	59	64	55	64	62	3.48	76	78	80	65		
1.48	58	60	65	55	64	62	3.52	76	79		65		
1.52	59	60	65	55	64	62	3.56	77	80		65		
1.56	59	61	65	55	65	63	3.60	78			65		
1.60	60	61	66	56	65	63	3.64	79			65		
1.64	60	62	66	56	65	64	3.68	80			66		
1.68	61	62	66	56	65	64	3.72				68		
1.72	61	63	67	57	65	64	3.76				69		
1.76	61	63	67	57	65	65	3.80				71		
1.80	61	63	67	57	66	66	3.84				73		
1.84	61	63	67	58	66	66	3.88				75		
1.88	62	64	68	58	66	67	3.92				76		
1.92	62	64	68	59	66	67	3.96				78		
1.96	62	64	68	59	67	67	4.00				80		
2.00	62	65	69	60	67	67							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Female Patients: N=402 Average Severity Scores for 6 Summary Scales

Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES	Raw ^a Score	T Phy	T Psy	T Med	T Sex	T ^b Mar	T CARES
0.00	35	32	49	45	46	26	2.52	59	62	64	57	63	61
1.00	44	43	56	51	52	36	2.56	59	62	65	57	63	61
1.04	44	43	56	51	52	36	2.60	59	62	65	57	63	61
1.08	44	43	56	51	52	37	2.64	60	62	65	57	63	62
1.12	44	44	56	51	52	38	2.68	60	63	65	57	63	62
1.16	45	44	56	51	53	39	2.72	60	63	65	58	63	63
1.20	45	45	57	51	53	40	2.76	61	63	65	58	63	63
1.24	45	46	57	51	53	41	2.80	61	63	66	58	64	63
1.28	46	47	57	51	53	42	2.84	61	64	66	59	64	64
? 1.32	47	48	57	51	54	42	2.88	62	64	67	59	64	64
1.36	47	48	57	51	54	43	2.92	63	64	67	59	64	65
1.40	48	49	57	52	54	44	2.96	63	65	67	60	64	66
1.44	48	49	58	52	55	45	3.00	64	65	68	60	65	66
1.48	49	50	58	52	55	46	3.04	64	65	68	60	65	66
1.52	49	50	58	52	56	47	3.08	64	66	68	60	65	67
1.56	49	50	58	53	56	48	3.12	65	67	68	60	65	67
1.60	50	51	58	53	56	48	3.16	65	67	68	60	65	68
1.64	50	51	58	53	56	49	3.20	66	67	68	60	65	68
1.68	51	51	58	53	57	50	3.24	67	67	68	60	65	69
1.72	51	51	58	53	57	50	3.28	68	68	68	60	65	69
1.76	52	52	59	54	57	51	3.32	68	68	68	60	66	70
1.80	52	53	59	54	58	51	3.36	69	68	68	60	66	71
1.84	53	53	60	54	58	52	3.40	69	68	69	61	66	71
1.88	53	53	60	55	59	52	3.44	69	69	69	61	67	72
1.92	54	54	61	55	59	53	3.48	70	69	69	61	67	72
1.96	55	55	62	55	60	53	3.52	71	70	70	61	67	72
2.00	56	56	62	56	60	54	3.56	72	70	71	61	67	72
2.04	56	56	62	56	60	54	3.60	74	70	72	61	67	72
2.08	56	56	62	56	60	55	3.64	75	72	73	61	67	75
2.12	56	56	62	56	61	56	3.68	75	73	73	62	67	76
2.16	56	57	62	56	61	56	3.72	76	74	74	64	67	77
2.20	56	58	62	56	61	57	3.76	77	75	75	66	67	78
2.24	56	58	62	56	61	57	3.80	77	75	76	69	68	78
2.28	56	59	63	56	61	58	3.84	78	77	77	71	70	79
2.32	57	59	63	56	61	58	3.88	78	78	78	73	73	79
2.36	57	59	63	56	62	59	3.92	79	79	78	75	75	79
2.40	58	60	64	57	62	59	3.96	79	79	79	78	78	80
2.44	58	60	64	57	62	60	4.00	80	80	80	80	80	80
2.48	59	61	64	57	62	60							

^a Raw score intervals were standardized to .04 intervals. Interpolation was used to create these intervals when the normative sample did not have exact scores at each interval. See discussion in manual for further explanation.

^b Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

CARES-SF

Standard Score Norms for All Female Patients: N=402
Number of Problems Endorsed Scores for 6 Summary Scales

Raw^a Score	T Phy	T Psy	T Med	T Sex	T Mar	T CARES
0	35	32	49	45	46	26
1	40	36	56	52	51	29
2	44	40	61	61	56	30
3	47	43	65	80	60	33
4	49	45	80		68	35
5	52	47			80	36
6	57	50				38
7	60	53				38
8	63	55				40
9	68	57				41
10	80	61				43
11		63				45
12		65				46
13		68				47
14		72				48
15		73				49
16		78				50
17		80				51
18						52
19						53
20						54
21						55
22						56
23						56
24						57
25						58
26						59
27						60
28						61
29						62
30						63
31						64
32						65
33						66
34						68
35						70
36						72
37						76
38						78
39						79
40						80

^a Marital Norms were calculated on a smaller sample (N=251) since not all patients were in a significant relationship.

Appendix E

Other Related Research Using CARES

CARES or its preliminary versions the CIPS have been used in several studies to assess the problems of cancer patients and to differentiate subgroups of patients. These studies will be briefly mentioned. There are a variety of investigations currently under way in which the CIPS/CARES is being used to document problems, quality of life, and assess outcome. These studies will not be complete for sometime and therefore are not available for discussion. For additional information or comparison, the original studies should be consulted.

1. (Heinrich, Schag, & Ganz, 1984) The first study evaluated 84 cancer patients using the first CIPS. The study documented that cancer has a significant extensive impact on psychosocial and physical functioning. Cancer patients had moderate to severe problems in personal care, activity management, involvement with the health care system, work and interpersonal interactions.
2. (Schag, Heinrich, & Ganz, 1984) The Kamofsky Performance Status score was evaluated. The first version of the CIPS was used to illustrate validity and develop more specific behavioral components in the rating of KPS.
3. (Ganz, Schag, Heinrich, 1985) The first version of the CIPS was used to evaluate 240 men with cancer. The primary variable used was age. Overall, younger patients experienced more frequent or severe psychosocial and treatment-related problems than the older patients, especially in relation to work and chemotherapy. Younger patients experienced more difficulty in dealing with the health care setting.
4. (Schag & Heinrich, 1986) Cancer patients responses to the first version of the CIPS were compared to cardiac patients and a group of healthy controls. Patients with cancer were found to have a larger number of problems and more severe problems than patients with cardiac disease and healthy controls. Some of the problem subscales that were particularly notable for cancer patients were Functional Health Status, Body Image, Weight Maintenance, Worry, Sexual Dysfunction, Problems Associated with Treatment and Job-Related.
5. (Schag & Heinrich, 1989) The items representing anxiety in medical situations were studied in more detail for 320 cancer patients. Females were consistently reporting higher anxiety than males. Multiple regression techniques were used to describe the relationship between a comprehensive set of demographic, medical and psychological variables associated with anxiety in medical situations. In sum, age, sex chemotherapy toxicity, problems communicating with the health team and global adjustment to the illness all accounted for a significant amount of the variance in anxiety in medical situations.
6. (Ganz, Schag, Polinsky, Heinrich, & Flack, 1988) A clinical interview was used as an adjunct to the administration of the CIPS in a sample of newly diagnosed breast cancer patients. Comparisons were made between patients undergoing modified radical mastectomy and patients receiving segmental mastectomy and primary radiotherapy. Physical and psychological problems were the most frequently reported categories of problems with few differences between the groups.