

Measuring Spiritual Well-Being in People With Cancer: The Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being Scale (FACIT-Sp)

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ABSTRACT

A significant relation between religion and better health has been demonstrated in a variety of healthy and patient populations. In the past several years, there has been a focus on the role of spirituality, as distinct from religion, in health promotion and coping with illness. Despite the growing interest, there remains a dearth of well-validated, psychometrically sound instruments to measure aspects of spirituality. In this article we report on the development and testing of a measure of spiritual well-being, the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being (FACIT-Sp), within two samples of cancer patients. The instrument comprises two subscales—one measuring a sense of meaning and peace and the other assessing the role of faith in illness. A total score for spiritual well-being is also produced. Study 1 demonstrates good internal consistency reliability and a significant relation with quality of life in a large, multiethnic sample. Study 2 examines convergent validity with 5 other measures of religion and spirituality in a sample of individuals with mixed early stage and metastatic cancer diagnoses. Results of the two studies demonstrate that the FACIT-Sp is a psychometrically sound measure of spiritual well-being for people with cancer and other chronic illnesses.

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INTRODUCTION

The past decade has seen a growing body of research examining the relation between religion and health. Studies have ex-

amined this relationship in community samples (1–3), among medical and surgical patients (4,5), and among cancer patients (6–9). Religious beliefs and practices have been demonstrated to have positive effects upon illness prevention, recovery from surgery, mental illness, and coping with physical illness (10).

As Larson, Swyers, and McCullough (11) noted, definitions of religion and spirituality have changed in the past few decades. Up until the 1960s and 1970s, religion was seen as a broad construct, encompassing individual and institutional elements as well as spirituality. More recently, religion has become more narrowly defined, and spirituality has become distinguished from religiousness, or the practice of religious behavior. Recent definitions of spirituality include dimensions such as a personal search for meaning and purpose in life, connection with a transcendent dimension of existence, and the experiences and feelings associated with that search and that connection (12,13). Religion is seen, in contrast, as participation in the institutionally sanctioned beliefs and activities of a particular faith group.

Although there has been important progress in research on religion/spirituality and health, at least two important methodological challenges persist. First, most of the research has examined the relation between one or more dimensions of religion and health, whereas the relation between spirituality and health has received little attention. Second, many studies of religion and health, including many of the studies of the role of religion in living with cancer, employed measures of religion whose reliability and validity were never established (14–16).

Two factors underscore the importance of studying the relation between spirituality and health. First, several observers have reported a change in approach to religion among many members of the baby boom generation (17,18). This change is marked by a defection from organized religion and worship and a more personal search for spiritual fulfillment. Roof (17) labeled this cohort “highly active seekers.” There is no definitive study of the proportion of the population who would identify with this pattern, but one study found that as many as 20% of their respondents identified themselves as spiritual but not religious (19).

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A second reason to focus on the relation between spirituality and health is the possibility that it will facilitate more inclusive studies. Measures of religion often reflect the beliefs and practices of a specific religious group. For example, the items in the Religious Well-Being subscale of the popular Spiritual Well-Being Scale (20) focus on a personal relationship with God, a belief that is central to Evangelical Protestantism but not equally significant in other branches of Christianity or other faith traditions. Measures of religion that focus on such specific beliefs cannot be employed in studies of religiously diverse populations without distortion.

This concern becomes more significant in light of America's changing religious landscape. As of 1996, those who reported affiliation with a major religion other than Christianity or Judaism (e.g., Islam, Hinduism, Buddhism) or with a new religious movement were a small percentage of our population (1.1% and .4%, respectively). However, that proportion has doubled in the past 23 years and is currently equal to the proportion of Orthodox Christians in America. If the current pattern of growth continues, in the next decade the number of adherents of Islam, Buddhism, and Hinduism combined will be larger than the number of adherents of Judaism (21). By examining spirituality rather than specific religious beliefs and practices, investigators may be able to be more inclusive of America's growing religious diversity, to study and compare people with diverse religious traditions as well as those who identify themselves as spiritual but not religious.

Commenting on several studies of religion, Thomason and Brody (22) argued that

further research is certainly needed to develop and test the validity of scales that measure spirituality independent of religiosity or religious practice. Such instruments need to assess spiritual needs in patients in language and concepts that are inclusive of the spiritual lives of nonreligious persons, as well as those for whom religious faith is at the core of their spirituality. (p. 97)

In this article we report on the development and psychometric properties of the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being (FACIT-Sp) scale, an instrument that was designed to provide an inclusive measure of spirituality that could be employed in research with people with chronic and/or life-threatening illnesses. At least two studies utilizing the FACIT-Sp (6,23) have already been published. However, this will be the first published demonstration of the scale's psychometric properties.

The FACIT-Sp¹ is part of the larger FACIT measurement system of which the Functional Assessment of Cancer Therapy–General (FACT-G) is the core instrument. The FACT-G measures health-related quality of life (QOL) and was developed using interview data from 135 cancer patients and 15 oncology specialists (24). In these interviews, both patients and specialists emphasized the relation between spiritual concerns and quality of life and discussed the importance of strength and comfort

from faith in coping with illness. However, during the item reduction phase of FACT-G development, the two spiritual well-being items were dropped due to low factor loadings on the main identified factors. However, the initial interviews, subsequent patient reports, and previous research on spirituality and chronic/terminal illnesses suggested the significance of spiritual and faith issues in this population. Therefore, we undertook the development of a scale containing items about spirituality to be used when assessment of this additional dimension of QOL is desired.

STUDY 1

The first study of the FACIT-Sp was undertaken to establish the factor structure, reliability and initial validity of the instrument. Data were collected in conjunction with a large-scale validation of the FACIT measurement system across languages (Spanish vs. English), cultures (Hispanic vs. Black non-Hispanic vs. White non-Hispanic), and literacy (high vs. low). Results of the Spanish language translation and validation have been reported elsewhere (25). From 1994 to 1996, participants were recruited from four sites in the mainland United States (Rush-Presbyterian–St. Luke's Medical Center and Cook County Hospital in Chicago and Emory University Medical Center and Grady Hospital in Atlanta, GA) and three sites in Puerto Rico (San Juan Veterans Administration Medical Center, Rafael Lopez Nussa Hospital, and the I. Gonzalez Martinez Hospital).

Method

Sample

The sample contained 1,617 subjects, of whom 53% were female and 47% were male. The median age was 54.6 years, and the median length of time since diagnosis with disease was 29 months. The majority (83.1%) of patients had cancer. Additional demographic and disease-related characteristics of the sample can be found in Table 1.

Measures

Functional Assessment of Cancer Therapy - General (FACT-G). The FACT-G (22) is a widely-used measure of QOL. The core of the FACIT scales, it comprises 27 questions that assess well-being in four domains: physical (PWB), functional (FWB), social/family (SFWB), and emotional (EWB). PWB comprises reports of physical symptoms; FWB assesses the degree to which the respondent can participate in and enjoy normal daily activities; the SFWB questions assess social support and communication; and the EWB measures mood and emotional response to illness. These individual domains are summed to create a total QOL score. Both the total score and the individual subscale scores have good internal consistency reliability (in this study, $\alpha = .72-.85$), and the instrument has been well validated (24).

FACIT - Spiritual Well-Being Scale (FACIT-Sp). The FACIT-Sp was developed with the input of cancer patients, psychotherapists, and religious/spiritual experts (e.g., hospital chaplains),

¹In several early publications, the scale was referred to as the Rush Spiritual Beliefs Module.

TABLE 1
Study 1: Sample Demographic and Disease Characteristics

Characteristic	Mdn	Range
Age	54.6	18–90
Number of months post cancer/HIV diagnosis	29.0	0–446
Education (years)	11.1	0–28
Characteristic	n	%
Sex		
Male	764	47.2
Female	853	52.8
Ethnicity		
African American	503	31.1
Latino	718	44.4
European American	396	24.5
ECOG PSR		
0	558	34.6
1	508	31.5
2	380	23.5
3	147	9.1
4	21	1.3
Language preference		
English	956	59.1
Spanish	661	41.9
Diagnosis		
Breast cancer	534	33.0
Colon cancer	258	16.0
Lung cancer	316	19.5
Head and neck cancer	236	14.6
HIV/AIDS	273	16.9

Note. $N = 1,617$. ECOG PSR = Eastern Cooperative Oncology Group Performance Status Rating.

who were asked to describe the aspects of spirituality and/or faith that contributed to QOL. The responses emphasized a sense of meaning in life, harmony, peacefulness, and a sense of strength and comfort from one's faith (26). Items included in the scale were taken from the original FACT-G interviews, subsequent validation and translation interviews with over 200 patients, and interviews with several hospital chaplains. The 12-item FACIT-Sp scale can be found in the Appendix.

Demographic, disease, and treatment information. Basic information regarding demographic characteristics, type and stage of disease, current and previous treatments, and Eastern Cooperative Oncology Group Performance Status Rating (ECOG PSR [27]) were obtained from each participant. The ECOG PSR is a widely used measure of functional status. It is a single item rating of five activity levels: 0 = fully ambulatory without symptoms; 1 = fully ambulatory with symptoms; 2 = requiring rest for 1 to 49% of the waking day; 3 = requires rest 50 to 99% of the waking day; and 4 = requiring complete bedrest. Patients rated their own performance status. Research assistants verified the disease and treatment information with the participant's medical record.

Marlowe-Crowne Social Desirability Scale (MCSDS). The 10-item short form (28) of the MCSDS (29) provides a measure of the degree to which participants endorse socially desirable characteristics. The reliability and comparability of the short form have been established (30). A validated Spanish version of the MCSDS (31) was completed by the Spanish-speaking participants in the study. As one would hope to see no correlation between social desirability and spiritual well-being, the MCSDS was administered to evaluate the discriminant validity of the FACIT-Sp.

Profile of Mood States—Short Form (POMS-SF). The POMS-SF (32) is a widely used scale measuring subjective mood states, such as anxiety/tension, vigor, and depression. It also produces a Total Mood Disturbance Score. The POMS-SF is a reliable and valid measure of affective states and is available in both English and Spanish (32). Convergent validity would be demonstrated by a moderate association between general distress, as measured by the POMS-SF, and more specific spiritual distress, indicated by the FACIT-Sp.

Procedure

Potential participants were identified from the daily record of office visits, treatment visits, and inpatient hospitalizations. Individuals who were over the age of 18, able to give informed consent, and had current or past diagnoses of cancer and/or HIV infection/AIDS were eligible for the study. Each potential participant was provided with a full explanation of the study, in accordance with the guidelines for treatment of human participants of each site's Institutional Review Board. Once informed consent was obtained, participants completed the packet of questionnaires. Questionnaires were administered in either Spanish or English, depending on the individual's score on a short acculturation scale evaluating preferred language: The psychometric equivalence of the Spanish translation of the original English FACIT scales has been documented (25).

Results

Factor Analysis

A principal components analysis with varimax rotation was performed on the 12 items of the FACIT-Sp to evaluate the unidimensionality of the scale (33). Three factors emerged with eigenvalues over 1.0 (3.2, 3.2, 1.5). However, the third factor comprised only 2 items that were worded negatively (as opposed to 10 positively worded items). Because the direction of the item phrasing—not content—seemed to drive the separation of this third factor, a two-factor solution was examined and found to be more interpretable. The results of the two-factor analysis can be found in Table 2. One factor, labeled Meaning/Peace, contains 8 items and assesses a sense of meaning, peace, and purpose in life. The other factor, labeled Faith, contains 4 items and measures several aspects of the relation between illness and one's faith and spiritual beliefs: The sense of strength and comfort, as well as the sense that "things will be okay," might be considered to be the "fruits" of faith/spiritual beliefs. The correlation between the two subscales was .54 ($p = .0001$). In the remainder of this section we

TABLE 2
FACIT–Factor Analysis With Varimax Rotation

FACIT–Sp Item	Factor 1 Loading	Factor 2 Loading
1. I feel peaceful.	.28	.63
2. I have a reason for living.	.29	.59
3. My life has been productive.	.25	.65
4. I have trouble feeling peace of mind. ^a	.01	.56
5. I feel a sense of purpose in my life.	.42	.63
6. I am able to reach down deep into myself for comfort.	.52	.59
7. I feel a sense of harmony within myself.	.49	.61
8. My life lacks meaning and purpose. ^a	–.10	.56
9. I find comfort in my faith or spiritual beliefs.	.90	.14
10. I find strength in my faith or spiritual beliefs.	.91	.12
11. My illness has strengthened my faith or spiritual beliefs.	.82	.09
12. I know that whatever happens with my illness, things will be okay.	.69	.31

Note. All loadings above .40 are bold. FACIT–Sp = Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being scale.

^aItem is reverse scored.

report the results for these two subscales and for an aggregated (summed) total score. Descriptive statistics can be found in Table 3. The distributions of both subscales and the total score were somewhat positively skewed.

Reliability

The reliability of the scale and subscales was evaluated with internal consistency coefficients, which reflect the degree to which all items on a particular scale measure a single (unidimensional) concept. The alpha coefficients for the total scale and the two subscales were quite good (Cronbach's $\alpha = .81-.88$): see Table 3.

Validity

There were moderate to strong correlations between the total FACIT–Sp score and QOL, as measured by the total FACT–G score and its subscale scores (see Table 4). Further, both the Meaning/Peace and Faith subscales were positively associated with the FACT–G and its subscales, with notably stronger correlations for Meaning/Peace versus Faith. The FACIT–Sp and its

TABLE 4
Spearman Correlations Between FACIT–Sp and the FACT–G, POMS, and MCSDS

Scale	Meaning/Peace	Faith	FACIT–Sp Total
FACT–G	.62	.34	.58
PWB	.31	.09	.25
EWB	.57	.35	.55
FWB	.54	.31	.51
SFW	.46	.28	.44
POMS Tension	–.46	–.21	–.41
POMS Depression	–.54	–.26	–.48
POMS Anxiety	–.44	–.24	–.41
POMS Vigor	.46	.25	.42
POMS Fatigue	–.39	–.20	–.36
POMS Confusion	–.53	–.24	–.47
POMS TMDS	–.60	–.30	–.54
MCSDS	.22	.26	.27

Note. $N_s = 1561-1589$. All $ps < .001$. FACIT–Sp = Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being scale; FACT–G = Functional Assessment of Cancer Therapy–General; MCSDS = Marlowe–Crowne Social Desirability Scale; PWB = Physical Well-Being; EWB = Emotional Well-Being; FWB = Functional Well-Being; SFWB = Social/Family Well-Being; POMS = Profile of Mood States; TMDS = Total Mood Disturbance Score.

subscales were also correlated with the POMS and its subscales, and again the pattern of stronger associations with the Meaning/Peace subscale is evident. An additional test of discriminant validity was conducted using the scores on the POMS Depression subscale. That is, previous research has established an inverse relation between depression and religion (34). We therefore predicted that more depressed respondents would have lower FACIT–Sp scores. The sample was divided into equal thirds using their scores on the POMS Depression subscale. Greater depression was associated with significantly lower FACIT–Sp total scores, $F(2, 1586) = 186.98, p = .0001$. Finally, there are weak (positive) associations between the Spiritual Well-Being subscales and total score and social desirability, as measured by the MCSDS.

Relation Between Spiritual Well-Being and Demographic and Disease Variables

The relation between spiritual well-being and the sample demographic and disease characteristics was evaluated using an analysis of variance within a general linear model. These results

TABLE 3
FACIT–Sp Descriptive Statistics: Study 1

	<i>M</i>	<i>SD</i>	Possible Range	Actual Range	Cronbach's α
FACIT–Sp total	38.5	8.1	0–48	1–48	.87
Meaning/Peace	25.2	5.6	0–32	1–32	.81
Faith	13.3	3.6	0–16	0–16	.88

Note. $N = 1,617$. FACIT–Sp = Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being scale.

TABLE 5
Relationship Between FACIT–Sp and Sample Characteristics

<i>Characteristic</i>	<i>Meaning/Peace</i>	<i>Faith</i>	<i>FACIT–Sp Total</i>
Age			
1 = 18–45	24.3	12.7	37.0
2 = 46–55	25.5	13.4	38.9
3 = 56–65	25.3	13.5	38.8
4 = > 65	25.8	13.7	39.5
<i>F</i>	5.74***	6.12***	7.59***
	1 < 2, 4	1 < 2, 3, 4	1 < 2, 3, 4
Education			
1 = Less than high school	25.0	13.6	38.6
2 = High school degree	25.2	13.3	38.4
3 = College	25.7	12.5	38.2
4 = Graduate school or degree	26.4	12.8	39.2
<i>F</i>	2.09	4.8**	.33
		1 > 3	
Marital status			
1 = Single	24.4	13.1	37.6
2 = Married	26.3	13.7	40.0
3 = Separated	24.3	13.8	38.1
4 = Divorced	25.0	13.1	38.1
5 = Widow	25.9	14.2	40.1
<i>F</i>	12.81***	7.87***	13.39***
	2 > 1, 3, 4; 5 > 1	2, 5 > 1	2 > 1, 3, 4; 5 > 1
Ethnicity			
1 = Latino	25.0	13.5	38.6
2 = African American	25.7	14.0	39.7
3 = European American	24.8	12.2	37.0
<i>F</i>	3.56*	29.8***	12.64***
	2 > 3	All	All
Language			
English	25.2	13.1	38.3
Spanish	25.2	13.6	38.9
<i>t</i>	–0.12	–2.99**	–1.37
Religious affiliation			
1 = Catholic	24.9	13.2	38.2
2 = Protestant	26.2	14.0	40.2
3 = Jewish	23.6	8.6	32.2
4 = Other	25.2	13.9	39.1
5 = None	23.0	10.2	33.3
<i>F</i>	8.98***	38***	21.1***
	2 > 1, 5; 1, 4 > 5	2, 4 > 1, 5, 3; 1 > 3, 5	2 > 1, 5, 3; 1, 4 > 5, 3;
Diagnosis			
1 = Breast cancer	26.1	13.8	39.9
2 = Colorectal cancer	26.1	14.0	40.2
3 = Head and neck cancer	25.2	13.6	38.8
4 = HIV+	22.6	11.6	34.1
5 = Lung cancer	25.3	13.2	38.5
<i>F</i>	21.19***	23.18***	28.38***
	2, 1, 3, 5 > 4	2, 1, 3, 5 > 4; 2 > 5	2, 1, 3, 5 > 4
Performance status			
0	26.7	13.6	40.2
1	25.0	13.3	38.2
2	24.2	13.1	37.2
3/4	23.5	13.2	36.7
<i>F</i>	23.28***	1.43	14.43***
	0 > 1, 2, 3/4; 1 > 3/4	None	0 > 1, 2, 3/4

Note. Results based on analysis of variance under a general linear model: All post hoc tests are Tukey tests. *N* = 1,617. FACIT–Sp = Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being scale; All = all differences are significant; None = no significant differences.

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

can be found in Table 5. Age had a weak positive association with the total score and subscale scores, such that older participants reported higher levels of spiritual well-being. Education had a weak, negative association with the Faith subscale only, such that participants with more years of education reported lower Faith scores. Women had higher scores than men on all three scales, and in general, married and widowed participants had the highest scores.

Scores on the two subscales and the total Spiritual Well-Being scale differed among ethnic and religious groups. African Americans had higher scores than Latinos, who had higher scores than European Americans on Faith and total Spiritual Well-Being, whereas African Americans had higher scores than European Americans on Meaning/Peace. Latinos did not differ significantly from the other two groups on Meaning/Peace. In general, Protestant participants had the highest scores on all three scales, whereas Jewish participants and those who claimed no religious affiliation had the lowest scores. Specific group differences can be found in Table 5.

Finally, type of disease was associated with the three scales, with participants with any type of cancer having higher scores than participants with HIV. Regarding performance status, participants who were fully ambulatory with no symptoms (ECOG PSR = 0) had higher scores on the FACIT-Sp and the Meaning/Peace subscale than all other groups. Scores on the Faith subscale did not differ by ECOG PSR.

STUDY 2

Having established the reliability of the FACIT-Sp and a significant relation between Spiritual Well-Being and QOL in patients with chronic disease in Study 1, a second study was undertaken to further validate the FACIT-Sp by examining its relation to existing measures of religion and spirituality. The data were collected in the context of a larger study that investigated the longitudinal association between fatigue and QOL in a sample of patients beginning chemotherapy for any solid tumor or hematological malignancy. Only data collected during the baseline assessment are reported herein.

Method

Sample

The demographic and disease characteristics of the 131 participants enrolled in this study can be found in Table 6. As shown, the sample was well educated and largely European American (87%), with good performance status. The majority of participants had breast (44.3%), colon (10.7%), or lung (10.7%) cancer. Sixty-five percent reported an affiliation with a specific church or synagogue.

Measures

Religion and spirituality. To permit analysis of convergent validity, five measures of religion/spirituality were employed in Study 2. These measures assessed six different dimensions of religion and spirituality, including organizational religious activity (ORA) and non-organizational religious activity (NORA),

TABLE 6
Study 2: Sample Demographic and Disease Characteristics

<i>Characteristic</i>	<i>Mdn</i>	<i>Range</i>
Age	56	20–82
Education (years)	16	4–24
<i>Characteristic</i>	<i>n</i>	<i>%</i>
Sex		
Male	39	29.8
Female	92	70.2
Ethnicity		
Latino	2	1.5
Asian American	3	2.3
African American	12	9.2
European American	114	87.0
Performance status		
0	79	60.3
1	36	27.5
2	16	11.5
3/4	1	0.8
Diagnosis		
Breast cancer	58	44.3
Colon cancer	14	10.7
Lung cancer	14	10.7
Ovarian	7	5.3
Lymphoma	11	8.4
Other known	27	20.6

Note. $N = 131$.

spiritual beliefs and religious social support, coherence, and intrinsic religiosity. Several individual items examining satisfaction with religion, outlook on life, and a sense of peace were also administered.

ORA was assessed with three items taken from Chatters et al. (35). The first item asked if the respondent was a member of a church or other religious institution. The other two items asked about the frequency of participation in public worship and other activities at one's religious institution. In this study, the internal consistency reliability estimate for these items was .70.

NORA was assessed with two items also taken from Chatters et al. (35). The first item asked about the frequency of private prayer, and the second item about the frequency of religious or devotional reading. The correlation between responses for these two items was .53.

The 15-item version of the Spiritual Beliefs Inventory (SBI) (36) has two subscales. A 10-item subscale assesses spiritual and religious beliefs and devotional practices, and a 5-item subscale measures social support obtained from one's religious colleagues and leaders. The alpha coefficient for the SBI and its subscales in this study were .96, .96, and .90, respectively.

The Coherence subscale of Reker's Life Attitude Profile-Revised (LAP-R) (37) was also included in Study 2. Reker defined coherence as "having a logically integrated and consistent analytical and intuitive understanding of self, others, and life in general. Implicit in coherence is a sense of order and rea-

son for existence, a clear sense of personal identity, and greater social consciousness” (p. 15). We employed the six-item Coherence subscale from the 1991 version of Reker’s LAP–R. Sample items include “I have a framework that allows me to understand or make sense of my life” and “A period of personal hardship and suffering can help give a person a better understanding of the real meaning of life.” The internal consistency coefficient for the Coherence subscale was .80 in this study.

Four single-item measures were also used. The first was “My whole approach to life is based on my religion,” which is a commonly employed measure of intrinsic religiosity, or the importance of religion to the respondent (38). Three individual items from the Cancer Patient Behavior Survey (CPBS) were also used: “satisfaction with religion,” “outlook on life,” and “sense of peace.” For these items and a variety of other activities and relations, the CPBS asks patients to compare how they are now with how they were before their illness. The items are scored on a 5-point scale from 1 (*worse*) to 3 (*same*) to 5 (*better*).

Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being (FACIT-Sp). The 12-item version of the FACIT-Sp that was tested in Study 1 was also administered to all participants in Study 2.

Demographic, disease and treatment information. Basic information regarding demographic characteristics, type and stage of disease, and current and previous treatments were obtained from each participant. In addition, research assistants verified the disease and treatment information with the participants’ medical records.

Procedure

Potential participants were identified from the daily record of patients beginning chemotherapy for solid tumors or hematological malignancies in the outpatient oncology clinics of two medical centers in the Midwest. Eligible individuals must have been receiving their first chemotherapy treatment for this episode of disease, and, for participants who had received prior chemotherapy, there must have been at least a 6-month chemotherapy-free period prior to study enrollment. Additional eligibility criteria were age over 18 years, ability to give informed consent, and absence of brain metastases. Each potential participant was provided with a full explanation of the study, in accordance with Institutional Review Board guidelines for the treatment of human participants. Once informed consent was obtained, a research assistant collected demographic and disease information from the participant by interview and allowed the participant to complete the self-report questionnaires.

Results

Descriptive Statistics and Scale Reliability

The mean scores on the full scale ($M = 36.8$, $SD = 8.3$) and subscales (Meaning/Peace, $M = 25.0$, $SD = 5.4$; Faith, $M = 11.8$; $SD = 4.3$) were roughly comparable to those obtained in Study 1. The correlation between the Meaning/Peace and Faith

subscales was somewhat lower, although still significant, in this study ($r = .27$, $p < .01$). The internal consistency estimates were also similar for the FACIT-Sp, Meaning/Peace, and Faith (Cronbach’s $\alpha = .86$, $.81$, and $.86$, respectively).

Validity

The primary purpose of Study 2 was to examine the relation between the FACIT-Sp and other measures of spirituality and religion. This comparison helps establish the convergent validity of the FACIT-Sp as well as document the degree to which the FACIT-Sp appears to measure something that is not captured by existing scales. Hence, moderate correlations above .30 between the FACIT-Sp and the other measures were considered to be supportive of convergent validity; correlations over .80 (64% shared variance) were suggestive of possible duplication of an existing construct.

As demonstrated in Table 7, the total FACIT-Sp was moderately correlated with all of the other measures ($r_s = .31$ with NORA to $.48$ with the total SBI score, $p_s < .0005$). The Faith subscale demonstrated moderate to strong correlations with all of the other measures ($r_s = .38$ with the Reker Coherence Subscales to $.75$ with the SBI total score, $p_s < .005$). None of the correlations with the Meaning/Peace subscale met our criteria for a significant degree of shared variability.

Following from the Study 1 finding that participants who were Jewish or who reported no religious affiliation had the lowest FACIT-Sp scores, Study 2 revealed a similar pattern. The FACIT-Sp total scores for those who reported a specific congregational affiliation ($n = 82$) were significantly higher than for those who reported no such affiliation ($n = 45$), $t(123) = 3.4$, $p = .0009$. Among those who reported a congregational affiliation, there were no significant faith group differences in FACIT-Sp scores, $F(3, 78) = .24$, *ns*, and no faith group differences among those who reported no specific congregational affiliation, $F(3, 39) = .46$, *ns*.

TABLE 7
Spearman Correlations Between FACIT–Sp and Other Measures of Religion and Spirituality

Measure	Meaning/ Peace	Faith	FACIT– Sp Total
Organizational religious activity	.13	.15**	.34***
Nonorganizational religious activity	.05	.54**	.31***
Intrinsic religiousness	.13	.61**	.41***
SBI Total	.13	.75**	.48***
SBI Beliefs	.09	.74**	.45***
SBI Support	.20*	.64***	.46***
Reker Coherence subscale	.28**	.38***	.38***
CPBS Satisfaction With Religion	.08	.39***	.25***
CPBS Outlook on Life	.25**	.36***	.37***
CPBS Sense of Peace	.28**	.34***	.36***

Note. $N = 131$. SBI = Spiritual Beliefs Inventory; CPBS = Cancer Patient Behavior Survey.

* $p < .05$. ** $p < .005$. *** $p < .0005$.

DISCUSSION

As Thoresen (39) and others (22) pointed out, an important next step in exploring the relation between spirituality and religion and health is the development of psychometrically sound measures of spirituality. Taken together, the results of Studies 1 and 2 demonstrate the validity and reliability of the FACIT-Sp, a new measure of spiritual well-being designed for use in research with people with chronic and life-threatening illnesses. The total scale and its two subscales show strong internal consistency reliability and a significant association with QOL. The total scale and Faith subscale demonstrate good concurrent validity with other measures of spirituality and religion.

The Meaning/Peace subscale is correlated in the expected direction with several of the other spirituality measures, but the limited number of significant correlations and their relatively small size suggest that this subscale measures a unique concept not assessed by the other instruments used in Study 2. That is, some definitions of spirituality refer to the sense of meaning and purpose that spirituality provides, as well as a feeling of harmony and peace deriving from a connection to something larger than the self. The items in the Meaning/Peace subscale of the FACIT-Sp appear to be a good measure of these aspects of spirituality. This conclusion is based on the face validity of the items in the subscale. It is important to continue to examine the construct validity of the subscale as other validated measures of this aspect of spirituality become available.

The FACIT-Sp has several important strengths that researchers might consider when evaluating the measure for use. First, this measure appears to be a good choice for assessing spirituality across a range of religious traditions and for respondents who identify themselves as spiritual but not religious. For example, the data from Study 2 suggest that among respondents with similar levels of religious commitment, the FACIT-Sp provides a measure of spirituality that is not biased for or against a particular religious group. In addition, the items in the scale make no reference to specific religious beliefs or practices, such as belief in God or use of prayer. Other validated measures of spirituality contain items that are more closely tied to religion in general (SBI-15) (36) or to the beliefs of a specific denomination (Spiritual Well-Being Scale [20]).

A second strength of the FACIT-Sp is that one subscale (Faith) has a moderate to strong association with religion, whereas the other subscale (Meaning/Peace) is not significantly associated with existing religion measures. This suggests that the Faith subscale may measure a dimension of spirituality that overlaps with, or is enhanced by, religion, whereas the Meaning/Peace subscale measures a dimension that is more independent and is not assessed by existing instruments. There is significant ongoing controversy, both in the research literature and the lay press, over the degree to which religion is a component of spirituality. Therefore, it may be desirable to use such a measure that allows the assessment of both the attitudes or behaviors associated with religion or faith and a sense of meaningfulness in life that is independent of any religion or specific belief.

A third strength of the FACIT-Sp is that the original validation took place in a large sample that was relatively diverse in ethnicity, religious affiliation, age, type of cancer, and stage of illness/prognosis. This provides initial assurance of the scale's acceptability and utility among a range of samples, although as noted next, additional testing in other populations will be necessary.

Fourth, the results of this study and two others (6,23) address a criticism that recently appeared in the literature (12). In our study, there were moderate correlations between FACIT-Sp scores and affective distress as derived from the POMS-SF. However, no more than 36% of the variance was shared between Meaning/Peace and any POMS-SF subscale. Brady et al. (6) reported a more comprehensive analysis of the unique relation between the FACIT-Sp and QOL in the same sample that was used in Study 1 here. Briefly, the FACIT-Sp total and subscale scores were still significantly associated with a single-item measure of contentment with QOL even after controlling for the effects of demographic and disease characteristics, mood as measured by the POMS, and social desirability. Cotton et al. (23) similarly demonstrated that the FACIT-Sp significantly predicted QOL among a sample of breast cancer patients, even after controlling for demographic characteristics, psychological adjustment to cancer, and another measure of spirituality. These findings do not support the conclusion, drawn by Koenig et al. (12), that the Meaning/Peace subscale is purely a measure of emotional well-being.

Brady et al. (6) also examined the best predictors of contentment with QOL among three FACT-G subscales (PWB, EWB, SFWB), the Meaning/Peace subscale, and the Faith subscale. In a stepwise regression equation, Meaning/Peace was the best predictor of contentment with QOL and the Faith subscale entered the equation before SFWB. In further analysis, we found the magnitude of the correlations of FACIT-Sp total score and Meaning/Peace score with contentment with QOL (.48 and .49, respectively) were similar to the correlations of PWB and EWB with contentment with QOL (.47 for both). Finally, we found that when patients with high levels of fatigue or pain were examined, those with higher Meaning/Peace and Faith scores reported significantly greater global QOL compared to those with lower scores on the FACIT-Sp subscales.

Three important limitations to the current version of the scale should be noted. First, as with other measures of religion and spirituality (40), there appear to be significant demographic differences in FACIT-Sp scores. Investigators should examine the need to control for gender, ethnicity, age, and/or marital status when using the FACIT-Sp. Also in keeping with findings for other measures of religion and spirituality, the FACIT-Sp total scale and subscale scores suffer from ceiling effects. This is especially evident in scores on the Faith subscale, where 46% and 30% of the subjects in Study 1 and 2, respectively, had the maximum score. Investigators should be aware of the potential impact of skewed distributions on some statistical analyses and might consider normalization of the distribution of the scores through standard statistical procedures. A third limitation is the possibility that the FACIT-Sp does not address a number of constructs that are important to a sense of spirituality for at least some people. These may

include such aspects as forgiveness, generosity, and love. A 23-item version of the FACIT-Sp, the FACIT-Sp-Ex, includes items that assess these additional aspects of spirituality, and testing of the FACIT-Sp-Ex is currently underway.

Additional psychometric testing of the FACIT-Sp is recommended. First, the performance of the scale should be examined in people of other religious traditions, particularly the Eastern religions and Islam. Relatedly, when employing measures of religion to establish the validity of measures of spirituality, it may be helpful to include an item that permits the stratification of the respondents according to the extent they identify themselves as spiritual and religious to meaningfully interpret the results. Second, as the FACIT-Sp was designed to be used in health-related research, it should be evaluated in samples of people with chronic or life-threatening conditions other than cancer and HIV/AIDS. Third, it would also be interesting to examine its utility and psychometric properties in a sample of healthy people: A nonillness version of the scale has been developed by altering the two scale items that refer to "my illness." Fourth, the ability of the scale to prospectively predict future psychosocial/QOL outcomes, as well as morbidity and mortality, might be tested. Finally, sensitivity to change in response to an intervention that targets spirituality could also be assessed.

In conclusion, evaluation of the FACIT-Sp indicates that it is a brief, reliable, valid measure of spirituality that may be especially useful in assessing the role of nonreligious spirituality in QOL and other health-related research. The scale is currently available in nine languages other than English: Dutch, French, German, Italian, Japanese, Norwegian, Portuguese, Spanish, and Swedish.

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APPENDIX
 FACIT–Sp (Version 4)

Below is a list of statements that other people with your illness have said are important. **By circling one (1) number per line, please indicate how true each statement has been for you during the past 7 days.**

		<i>Not at all</i>	<i>A little bit</i>	<i>Somewhat</i>	<i>Quite a bit</i>	<i>Very much</i>
Sp1	I feel peaceful	0	1	2	3	4
Sp2	I have a reason for living	0	1	2	3	4
Sp3	My life has been productive	0	1	2	3	4
Sp4	I have trouble feeling peace of mind	0	1	2	3	4
Sp5	I feel a sense of purpose in my life	0	1	2	3	4
Sp6	I am able to reach down deep into myself for comfort	0	1	2	3	4
Sp7	I feel a sense of harmony within myself.	0	1	2	3	4
Sp8	My life lacks meaning and purpose	0	1	2	3	4
Sp9	I find comfort in my faith or spiritual beliefs	0	1	2	3	4
Sp10	I find strength in my faith or spiritual beliefs	0	1	2	3	4
Sp11	My illness has strengthened my faith or spiritual beliefs	0	1	2	3	4
Sp12	I know that whatever happens with my illness, things will be okay	0	1	2	3	4