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Allen C. Sherman
Thomas G. Plante
Stephanie Simonton
Dawn C. Adams
Casey Harbison
S. Kaay Burris

A multidimensional measure of religious involvement for cancer patients: the Duke Religious Index

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A.C. Sherman, Ph.D. (✉) · S. Simonton, Ph.D. · D.C. Adams, M.A.
Behavioral Medicine, University of Arkansas for Medical Sciences, 4301 West Markham, Slot 756, Little Rock, AR 72205, USA
e-mail: ShermanAllenC@exchange.uams.edu
Fax: +1-501-686-8700

T.G. Plante, Ph.D.
Department of Psychology, Santa Clara University and Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, 500 El Camino Real, Santa Clara, CA 95053, USA

C. Harbison, B.S. · S.K. Burris, B.S.
Department of Psychology, University of Arkansas at Little Rock, 2801 S. University, Little Rock, AR 72204, USA

Abstract Despite increasing interest in the relationship between religious involvement and health outcomes for cancer patients, research has been limited by the lack of appropriate measures. Few of the many instruments available are well suited to cancer patients. The current study examined the psychometric properties of one recently developed measure, the Duke Religious Index (DRI), which assesses several aspects of religious involvement. The DRI was evaluated in two distinct samples: 104 cancer patients receiving treatment at a bone marrow transplantation program and 175 gynecology clinic patients. The instrument demonstrated good internal consistency (coefficient alphas 0.87–0.94). Moderate to high correlations with other measures of religiosity provided support for convergent validity. Modest relationships with other measures commonly used in psychosocial oncology (e.g., optimism, social support, purpose in life) indicated that the instrument provides unique information (all r_s's <0.42). Small relationships with social desirability response bias, negative affect, and relationship cohesion further supported the divergent validity of the instrument (all r_s's <0.22). The DRI was significantly associated with demographic characteristics but not with medical variables. Findings support the value of the DRI for use in oncology settings.

Key words Religious involvement · Bone marrow transplantation · Assessment · Reliability · Validity

Introduction

Growing attention has focused on the relationship between spiritual or religious involvement and health outcomes for cancer patients. Many patients view religion as an important resource for coping with the crisis of life-threatening illness [16, 23, 32]. In a recent survey of cancer patients with various sites and stages of disease, over one-third expressed a need for spiritual support [31]. Initial studies, most of which have focused on patients with advanced disease, suggest that cancer patients with stronger religious ties have more favorable psychosocial adjustment and health-related quality of life (e.g., less pain, anxiety, fear of death) than those who are less religious [22, 24, 47, 50]. Epidemiological and clinical research has also suggested links between religious involvement and better health behaviors (e.g., exercise, nutrition [27, 33]), less use of medical services [12], and lower rates of morbidity or mortality from cancer [14] and other chronic diseases [10, 28–30].

Despite growing recognition of the importance of religion for cancer patients, research has been constrained by the lack of adequate measures for this population. Religiosity is a complex, multidimensional construct, involving aspects of religious beliefs, practices,

motivation, coping, and social support [40]. Many instruments are available to assess different facets of religious involvement, but few are well suited to cancer patients [44]. The brief, one- to two-item measures frequently used in epidemiological studies provide only limited information [35], while instruments used in behavioral science research are sometimes lengthy and burdensome for patients with serious illness. Some measures assume that the respondent belongs to a particular religious affiliation (e.g., Christian). Other measures used with cancer patients appear to confound spirituality with psychological well-being, making it difficult to disentangle coping resources from coping outcomes (e.g., Spiritual Well-Being Scale [11]; FACT Spirituality scale [6]). Adding to the conceptual ambiguity in this area, several studies seem to confuse general religious orientation with cancer-specific religious coping. Advances in research require the development of brief, theoretically coherent, validated measures for use in oncology settings.

Recently, several instruments have been developed that seem to avoid some of these problems and may be better suited to use with cancer patients. The Systems of Belief Inventory – Revised (SBI-15R) [20] and the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) [37] are both brief measures that assess important dimensions of religious involvement. In both measures, item content appears to be independent of psychological well-being. The SBI-15R assesses religious beliefs and practices and social support derived from a religious community. Evidence of internal consistency, test-retest reliability, and construct validity was obtained in a study of multiple myeloma patients and medically healthy individuals [20]. Little information was provided concerning the validity of the subscales (i.e., religious beliefs and practices; religious social support). The extent to which this measure is influenced by social desirability response bias, or overlaps with other measures commonly used in behavioral oncology research (e.g., optimism, nonreligious social support, purpose in life) is unclear. The SCSORF focuses on a different dimension of religiosity: strength of religious faith. Research with clinical samples (including cancer patients) and community residents has demonstrated evidence of internal consistency and construct validity [36, 37, 44].

The current study examined the value of another brief measure that appears promising for use with cancer patients. The Duke Religious Index (DRI) [25] assesses three aspects of religious involvement: (1) public or organizational religious behavior (e.g., church attendance), (2) private or nonorganizational religious behavior (e.g., prayer or meditation), and (3) intrinsic religious motivation (e.g., involvement of religion in all of one's dealings in life). This instrument assesses dimensions of religiosity not directly addressed by the SCSORF or the SRI-15R. However, only limited information has been published concerning its reliability and validity, considerations that are especially important given that two of the three scales consist of single items. Large studies with community samples and elderly medical patients demonstrated significant inverse correlations between organizational religiosity and measures of depression, functional impairment, severity of medical illness, and mortality [25]. As expected, this scale was also positively associated with social support. Nonorganizational religiosity was associated with poorer physical health. No information is available concerning the instrument's relationship with other measures of religiosity (i.e., convergent validity). The degree to which scores are influenced by social desirability response bias or neuroticism is unknown. The instrument has never been validated for use with cancer patients.

The purpose of the current study was to evaluate the DRI for use in oncology settings and to provide additional information about its reliability and construct validity. Internal consistency, one of several types of reliability, indicates the extent to which different items on a questionnaire measure the same characteristic (e.g., religious involvement). The construct validity of a questionnaire refers to how adequately it measures the characteristic it was designed to measure. Construct validity is established in part through convergent and discriminant validity. An instrument that correlates well with other measures of the same construct demonstrates convergent validity. The DRI was expected to demonstrate moderate to high correlations with other measures of religiosity (e.g., intrinsic religious motivation, religious faith, perception of self as religious, strength and comfort derived from religion, and helpfulness of religious coping). Discriminant validity indicates that a questionnaire does not measure characteristics other than the one it was developed to measure. The DRI was expected to show small associations with social desirability (i.e., attempts to create a favorable impression) and with conceptually unrelated measures (e.g., relationship cohesion). In addition, we examined its relationship with conceptually related measures often used in psycho-oncology research (e.g., optimism, nonreligious social support, purpose in life, hardiness, emotional inhibition). If the instrument is to provide distinctive information, it would be expected to overlap only modestly with these measures. Finally, we assessed its association with demographic background and medical variables.

To determine whether results are consistent across differences in medical settings, types of illness, and disease severity, we assessed the DRI in two well-defined samples: (1) cancer patients receiving treatment at a bone marrow transplant (BMT) program, and (2) noncancer patients receiving services in a gynecology clinic. Thus, participants were selected to represent a range of

medical conditions including relatively healthy patients and those facing aggressive treatments and threats to mortality.

Patients and methods

Sample 1: BMT patients

Data were collected as part of a study concerning assessment of religious faith; these results are reported elsewhere [44]. The study was approved by the Human Subjects Review Committee at Arkansas Cancer Research Center (ACRC). Participants were a convenience sample of 104 cancer patients receiving treatment at the ACRC Myeloma and Transplantation Research Center. The sample included 70 ambulatory patients and 34 inpatients. Exclusion criteria included age younger than 18, dementia or cognitive impairment, physical functioning sufficiently compromised to preclude participation (i.e., Karnofsky Index <70), and inability to read and write English. Of those eligible to enroll, 21 patients declined to participate, and 15 did not return their questionnaires (75.2% response rate). Five questionnaires could not be used in the analysis due to missing data, resulting in a final sample of 104. For the 104 participants, under 1% (0.3%) of the questionnaire items contained missing values.

Sixty-three percent of the BMT participants were men and 37% percent were women. The mean age was 56.8 (SD 9.9) years. Most participants were white (95.2%), married (77.9%), and Protestant (75.0%). Forty-two percent reported income between $30,000 and $70,000, and most had more than high school education (mean 14.9 years, SD 3.0). Most participants had multiple myeloma (82.1%); 15% had other hematological cancers (e.g., non-Hodgkin's lymphoma, chronic lymphocytic leukemia,) and 3.2% had breast cancer. Patients were in various phases of treatment. The average time since initial diagnosis was 36.0 months (SD 31.0). Most participants had been diagnosed initially with advanced disease (stage III: 75.5%). Participants did not differ significantly from nonparticipants in demographic characteristics (i.e., age, sex, marital status, ethnicity) or medical variables (i.e., type of cancer, stage at initial diagnosis, time since diagnosis, type of transplant, number of prior transplants, phase of treatment).

Sample 2: gynecology clinic patients

Participants in the second convenience sample included 175 female ambulatory patients treated at a private gynecology clinic (GYN). Most of these women were receiving routine annual exams. Exclusion criteria were identical to those described above for the BMT sample. Of 229 eligible patients 27 refused to participate, and 27 did not return their questionnaires (76.4% response rate). Among the 175 participants, under 1% (0.3%) of the items contained missing values.

The mean age of GYN participants was 43.1 (SD 11.1) years. They were predominantly white (93.1%), married (70.9%), and Protestant (81.7%). Forty-six percent had incomes between $30,000 and $70,000, and most had more than high school education (mean 14.7, SD 2.3 years). Participants did not differ significantly from nonparticipants in age.

Procedure

Potential participants were contacted by a trained research assistant, who explained the study, obtained a consent statement, and distributed a packet of questionnaires. Ambulatory patients who were unable to complete the packet in the clinic were given a stamped envelope and permitted to finish the packet at home; most patients completed the packet at home.

Religious measures

The following measures were included in the 10-page packet.

The Duke Religious Index (DRI) [25] is a five-item measure of religious involvement, which yields three scales: (1) Organizational religious behavior (1 item), (2) Nonorganizational religious behavior (1 item), and (3) Intrinsic religious motivation (3 items drawn from the Intrinsic Religious Motivation Scale [19]). Patients respond to items on 5- or 6-point Likert scales. Items are reversed scored, and appropriate items are summed to derive the Intrinsic scale and the Total score.

- The Intrinsic Religious Motivation Scale (IRMS) [19] is a 10-item measure of religious motivation, which has demonstrated high internal consistency and convergent validity in community and medical samples [19, 25]. Cronbach's alpha was 0.89 for the BMT sample and 0.91 for the GYN sample.
- The Age Universal Religious Orientation Scale (AUROS) [15] is a 20-item measure of religious motivation, which yields two scales: Intrinsic (i.e., internalized religious beliefs that guide the respondent's life) and Extrinsic (i.e., use of religion for comfort or social benefits). In the current study, Cronbach's alpha was 0.91 in the BMT sample and 0.86 in the GYN sample for the Intrinsic scale, and 0.61 and 0.57, respectively, for the Extrinsic scale; consequently, results concerning the Extrinsic scale should be interpreted with caution.
- The Santa Clara Strength of Religious Faith Questionnaire (SCSORF) [36, 37] is a 10-item measure of strength of religious faith. It has shown high internal consistency and evidence of convergent and divergent validity [36, 37]. Cronbach's alpha was 0.97 in the BMT sample and 0.96 in the GYN sample.
- Additional religiosity measures: Patients responded to two additional items that are widely used in epidemiological research: (1) degree of strength and comfort derived from religion or spirituality (0 = "none" to 3 = "a great deal"); and (2) how religious respondents consider themselves to be (0 = "not religious" to 10 = "very religious" [21, 28, 51]). Two other items, constructed by the investigators, concerned (3) how spiritual respondents consider themselves to be (0 = "not spiritual" to 10 = "very spiritual"), and (4) extent to which religious faith is helpful in coping with stress (1 = "does not help" to 10 = "helps a lot").

Other measures

- The Purpose in Life scale (PIL) [8] is a 20-item questionnaire designed to measure perceived purpose or meaning in life. Multiple studies have provided evidence of internal consistency and construct validity [8, 18, 48]. In the current study Cronbach's alpha was 0.86 in the BMT sample and 0.91 in the GYN sample.
- The Sense of Coherence scale [1] contains 29 items assessing a health-promoting personality style or orientation to life. It yields three scales: Comprehensibility, Manageability, and Meaningfulness. Studies with diverse samples have demonstrated evidence of high internal consistency and construct validity [1, 2, 26]. In the current study the Meaningfulness sub-

scale (SOC-ME) was used. Cronbach's alpha for was 0.86 in the BMT sample and 0.89 in the GYN sample.
- The Life Orientation Test (LOT) [41] measures dispositional optimism and pessimism, or the tendency to expect positive or negative outcomes across situations. Items generate a total score, an Optimism scale, and a Pessimism scale. Evidence of reliability and construct validity was obtained in samples of breast cancer patients [43], cardiac patients [42], and college students [41]. In the current sample, coefficient alphas were 0.78 and 0.84 for the total score, 0.79 and 0.80 for Optimism, and 0.75 and 0.83 for Pessimism, in the BMT and GYN samples, respectively.
- The Social Provisions Scale (SPS) [9] is a 24-item measure of perceived social support. The instrument has demonstrated construct validity with diverse samples across a number of studies [3, 9, 39]. The total score was used in the present study as a global measure of perceived support. Cronbach's alpha was 0.90 in the BMT sample and 0.91 in the GYN sample.
- The Hardiness Scale short form (HS) [4] is a 30-item questionnaire designed to assess dispositional resilience to stress. It includes a total score and three subscales, Commitment, Control, and Challenge. Evidence of construct and predictive validity were reported in a military setting [4]. As previous research has shown good internal consistency for the total score but lower reliabilities for the subscales [4], only the total score was used in this study. Cronbach's alpha was 0.64 in the BMT sample and 0.77 in the GYN sample.
- The Courtauld Emotional Control Scale (CECS) [49] assesses the extent to which individuals consciously control or inhibit their emotional responses. Studies have demonstrated criterion-related validity in samples of breast cancer and other medical patients [49]. The total score was used in the current study; Cronbach's alpha was 0.92 in the BMT sample and 0.91 in the GYN sample.
- The Taylor Manifest Anxiety Scale short form (TMAS) [5] is a 20-item, true-false measure of trait anxiety, with established reliability and validity [5, 17]. It was used in the current study to represent negative affect or neuroticism. Cronbach's alpha was 0.81 for the BMT sample and 0.87 for the GYN sample.
- The Marlowe Crowne Social Desirability Scale (MC) [7] is a widely used true-false measure of defensiveness, or tendency to present oneself in a favorable light. It has demonstrated acceptable internal consistency and construct validity in diverse samples [7, 46]. In the current sample, Cronbach's alpha was 0.83 for the BMT sample and 0.74 for the GYN sample.
- The Dyadic Adjustment Scale – Cohesion Subscale [45] is a frequently used measure of the quality of marital or intimate relationships. Studies have demonstrated high reliability and construct- and criterion-related validity for each of the four subscales included in this measure [45]. The Cohesion subscale (DAS-C) was used in the current study. Cronbach's alpha was 0.85 for the BMT sample and 0.87 for the GYN sample.

Results

Reliability

For each sample, means, standard deviations, and reliability coefficients of the DRI scales are displayed in Table 1. The DRI Intrinsic scale and DRI Total scores demonstrated high internal consistency in both settings (coefficient alphas ranged from 0.87 to 0.94).

Convergent validity

There were moderate to high correlations between each of the DRI scales and most other measures of religiosity (see Table 2). In both samples, the strongest associations involved the DRI Intrinsic and DRI Total scores, each of which was highly correlated with the IRMS and SCSORF, and with individual items concerning helpfulness of religious coping and perception of self as religious. The DRI Intrinsic and DRI Total scores were each strongly correlated with the AUROS Intrinsic scale among the BMT patients, but these relationships were more modest among the GYN patients. The smallest relationships were between the DRI scales and the AUROS Extrinsic scale.

Discriminant validity

As expected, none of the DRI scales was significantly associated with negative affect or relationship cohesion. Among the BMT patients, there were small, significant correlations between social desirability and both the DRI Intrinsic and the DRI Total scores (see Table 3). Social desirability was not related to the DRI Organizational Religiosity or DRI Nonorganizational Religiosity scales in the BMT sample, or to any of the DRI scales in the GYN sample. As anticipated, there were modest associations between the DRI scales and conceptually-related psychological measures (see Table 3). Most of the DRI scales were significantly correlated with optimism, purpose in life, and sense of meaning in both sam-

Table 1 Means, SD, and coefficient alphas for Duke Religious Index scales (*OR* Organizational religiosity, *NOR* Nonorganizational religiosity)

	Cancer patients ($n=104$)			Gynecology patients ($n=175$)		
Scale	Mean	SD	Alpha	Mean	SD	Alpha
OR	2.76	1.49	–	2.98	1.65	–
NOR	2.84	1.66	–	3.06	1.61	–
Intrinsic	5.96	3.28	0.94	5.87	2.91	0.90
Total	11.56	5.67	0.90	11.90	5.34	0.87

Table 2 Spearman correlations between Duke Religious Index scale and measures of religious involvement (*IRMS* Intrinsic Religious Motivation Scale, *AUROS* Age Universal Religious Orientation Scale, *SCSRF* Santa Clara Strength of Religious Faith)

	Cancer patients ($n=104$)				Gynecology patients ($n=175$)			
Measure	OR	NOR	Intrinsic	Total	OR	NOR	Intrinsic	Total
IRMS	0.56***	0.60***	0.81***	0.79***	0.67***	0.57***	0.81***	0.84***
AUROS Intrinsic	0.62***	0.67***	0.80***	0.83***	0.27**	0.09	0.28**	0.28**
AUROS Extrinsic	–0.18†	–0.06	–0.10	–0.14	–0.01	–0.06	–0.13†	–0.10
SCSORF	0.64***	0.67***	0.78***	0.82***	0.70***	0.61***	0.78***	0.84***
Comfort from religion	0.57***	0.60***	0.68***	0.71***	0.60***	0.55***	0.71***	0.73***
Self-perception as religious	0.60***	0.63***	0.71***	0.76***	0.67***	0.58***	0.73***	0.80***
Self-perception as spiritual	0.47***	0.60***	0.68***	0.71***	0.46***	0.52***	0.72***	0.69***
Religious coping	0.55***	0.68***	0.72***	0.76***	0.58***	0.63***	0.71***	0.76***

***$P<0.001$, **$P<0.01$, *$P<0.05$, †$P<0.10$

Table 3 Spearman Correlations between Duke Religious Index scales and psychological measures (*LOT* Life Orientation Test, *CECS* Courtauld Emotional Control Scale)

	Cancer patients ($n=104$)				Gynecology patients ($n=175$)			
Measure	OR	NOR	Intrinsic	Total	OR	NOR	Intrinsic	Total
Purpose in life	0.28**	0.26**	0.28**	0.37**	0.27**	0.14†	0.27**	0.29**
Meaning	0.20*	0.24*	0.29*	0.33**	0.23**	0.14†	0.24**	0.25**
LOT Optimism	0.30*	0.24*	0.38**	0.41***	0.18*	0.10	0.23**	0.23**
LOT Pessimism	0.09	0.11	0.20*	0.20*	0.11	0.09	0.11	0.14†
LOT total	0.24*	0.22*	0.34**	0.36**	0.18*	0.11	0.17*	0.20**
Social support	0.13	0.15	0.25**	0.22*	0.10	0.08	0.19*	0.15†
CECS total	0.06	–0.07	–0.15	–0.07	–0.11	–0.06	–0.12	–0.11
Hardiness	0.16	0.06	0.20*	0.20*	0.05	0.05	0.15*	0.11
Negative affect	–0.10	–0.13	–0.07	–0.16	–0.11	–0.04	–0.10	–0.12
Relationship cohesion	0.14	0.10	0.09	0.13	–0.03	0.12	0.05	0.08
Social desirability	0.12	0.09	0.21*	0.21*	0.02	0.03	0.03	0.05

**$P<0.01$; *$P<0.05$; †$P<0.10$

ples. The DRI Intrinsic and DRI Total scores were also correlated with perceived social support and hardiness in one or both samples. The highest of these correlations was 0.41, indicating that despite shared variance with related measures, the DRI provides unique information.

Correlations among the DRI scales were also examined for evidence of discriminant validity. The different dimensions of religiosity assessed by the instrument were expected to overlap without demonstrating marked redundancy. Correlations were moderate, ranging from 0.47 to 0.67 (Table 4), indicating significant overlap among the scales.

Table 4 Spearman correlations between Duke Religious Index scales. All correlations $P<0.001$

	Cancer patients ($n=104$)		Gynecology patients ($n=175$)	
Scale	OR	NOR	OR	NOR
NOR	0.47		0.49	
Intrinsic	0.51	0.47	0.61	0.51

Association with demographic and medical variables

Several of the DRI scales were influenced by demographic variables. Among BMT patients, there was a significant positive correlation between age and the DRI Organizational Religiosity scale ($r_s=0.24$, $P=0.016$). Among GYN patients, age was significantly correlated with the DRI Intrinsic scale ($r_s=0.15$, $P=0.050$) and marginally correlated with the DRI Total score ($r_s=0.13$, $P=0.08$). Education was negatively correlated with DRI Organizational Religiosity among the GYN patients ($r_s=-0.15$, $P=0.04$). Kruskal-Wallis analyses of variance indicated that income was significantly associated with each of the DRI scales except Nonorganizational Religiosity among the BMT patients (all P-values <0.05), and was significantly or marginally associated with all DRI scales except Intrinsic Religiosity among the GYN patients (all P-values <0.084).

Mann-Whitney tests indicated that DRI scales were not significantly influenced by marital status (married vs not married), religious affiliation (Catholic vs Protestant), or employment status (employed vs not working outside the home) in either sample, or by sex in the BMT sample. With respect to medical variables, cancer patients with multiple myeloma scored marginally lower than patients with other types of cancer on the DRI Nonorganizational Religiosity ($P=0.08$) and DRI Total ($P=0.054$) scales. DRI scores were not significantly affected by stage at diagnosis, time since diagnosis, inpatient vs outpatient status, number of prior transplants, or phase of treatment.

Discussion

If the relationships between religion and health among cancer patients are to be better understood, it is important for investigators and clinicians to use well-defined conceptual models and appropriate, validated measures. This study examined the psychometric properties of the DRI in two distinct medical samples: patients with advanced cancer treated in a BMT program, and relatively healthy women receiving services at a gynecology clinic. Findings were encouraging. The DRI was well accepted and easily completed by patients in this study. As expected, each of the scales was moderately to highly correlated with other self-report measures of religious involvement, including intrinsic religiosity, religious faith, comfort and support derived from religion, perception of self as religious or spiritual, and helpfulness of religious coping (i.e., convergent validity). The magnitude of these relationships was somewhat stronger for the Total score and the Intrinsic scale relative to the Organizational and Nonorganizational Religiosity scales, perhaps because the latter scales are composed only of single items.

The DRI also demonstrated evidence of discriminant validity. As anticipated, most of the DRI scales were modestly correlated with conceptually related measures used in behavioral oncology research, such as optimism, purpose in life, sense of meaning, perceived social support, and hardiness. Despite moderate overlap with these measures, however, the DRI provides unique information.

The DRI was not greatly affected by social desirability response bias, though two of the scales – Intrinsic Religiosity and the Total score – showed small, significant correlations with this measure among the BMT patients. As anticipated, the DRI scales were not associated with negative affect or the quality of intimate relationships. These findings provide further support for the discriminant validity of the instrument. Several of the DRI scales were significantly influenced by age, education, and income. These findings are consistent with previous studies that have reported relationships between stronger religious involvement and older age, lower education, and lower income [13, 25, 34], though our findings concerning income were complex and nonlinear. Scores were not strongly affected by medical variables, such as time since diagnosis, number of prior bone marrow transplants, or phase of treatment.

The DRI as a whole, and the Intrinsic scale, showed good internal consistency reliability. There was moderate to high overlap among the three DRI scales (i.e., Organizational Religiosity, Nonorganizational Religiosity, Intrinsic Religiosity), but their differential relationships with health outcomes [25] justify examining them separately rather than looking only at the total score.

A rather surprising finding was the lack of a significant association between Organizational Religiosity and social support. Involvement in communal religious practices is usually thought to provide social ties and a sense of support. Koenig and colleagues [25] reported a significant relationship between this scale and social support. Thus, it is unclear whether our results reflect a weakness in the scale or are unique to the current sample or to this particular measure of social support. Efforts to further develop and validate the Organizational Religiosity scale would be helpful.

This study is the first to examine the performance of the DRI for use with cancer patients. Results suggest that it may be a useful instrument for assessing various dimensions of religious involvement in oncology settings. A limitation of this study is that most participants were white, and most were Protestant or Catholic. The DRI should be evaluated among other ethnic and religious groups. The noncancer patients in this study were all women; additional research with younger, male patients with nonmalignant illnesses would be helpful. Research should also examine the instrument among cancer patients with other types of malignancies, across various stages of disease and levels of functional impairment. Test-retest reliability should be evaluated; these data are pending. Longitudinal studies would help clarify the extent to which different dimensions of religious involvement shift over the course of life-threatening illness. Current findings suggest that the DRI may be a useful tool to assess relationships between religiosity and emotional and physical health outcomes among cancer patients.

In addition to its value for researchers, clinicians may find the DRI helpful as a screening tool, to determine whether various dimensions of religiosity are important to their patients. Many cancer patients report that they are not receiving the spiritual support they need [31]. Use of a brief questionnaire such as the DRI may provide pertinent information, assure the patient and family that the clinician is interested in providing comprehensive care, and lead the way to a useful con-

versation about spiritual concerns. Although all patients should be asked whether they are receiving the spiritual resources they desire, this inquiry may be especially important for patients with high DRI scores, for whom religion plays a central role. Patients whose functional limitations have resulted in lower scores on the Organizational Religiosity scale (e.g., church attendance) relative to the other scales warrant particular attention; these patients are among those most likely to benefit from referrals to clergy or pastoral care counselors if they report needs for additional support.

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