

## Why Is Spiritual Care Infrequent at the End of Life? Spiritual Care Perceptions Among Patients, Nurses, and Physicians and the Role of Training

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### A B S T R A C T

#### Purpose

To determine factors contributing to the infrequent provision of spiritual care (SC) by nurses and physicians caring for patients at the end of life (EOL).

#### Patients and Methods

This is a survey-based, multisite study conducted from March 2006 through January 2009. All eligible patients with advanced cancer receiving palliative radiation therapy and oncology physician and nurses at four Boston academic centers were approached for study participation; 75 patients (response rate = 73%) and 339 nurses and physicians (response rate = 63%) participated. The survey assessed practical and operational dimensions of SC, including eight SC examples. Outcomes assessed five factors hypothesized to contribute to SC infrequency.

#### Results

Most patients with advanced cancer had never received any form of spiritual care from their oncology nurses or physicians (87% and 94%, respectively;  $P$  for difference = .043). Majorities of patients indicated that SC is an important component of cancer care from nurses and physicians (86% and 87%, respectively;  $P$  = .1). Most nurses and physicians thought that SC should at least occasionally be provided (87% and 80%, respectively;  $P$  = .16). Majorities of patients, nurses, and physicians endorsed the appropriateness of eight examples of SC (averages, 78%, 93%, and 87%, respectively;  $P$  = .01). In adjusted analyses, the strongest predictor of SC provision by nurses and physicians was reception of SC training (odds ratio [OR] = 11.20, 95% CI, 1.24 to 101; and OR = 7.22, 95% CI, 1.91 to 27.30, respectively). Most nurses and physicians had not received SC training (88% and 86%, respectively;  $P$  = .83).

#### Conclusion

Patients, nurses, and physicians view SC as an important, appropriate, and beneficial component of EOL care. SC infrequency may be primarily due to lack of training, suggesting that SC training is critical to meeting national EOL care guidelines.

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### INTRODUCTION

Religion and spirituality (R/S) are important dimensions of most patients' experiences of advanced illness<sup>1,2</sup> and are associated with medical outcomes including improved quality of life (QOL)<sup>3,4</sup> and greater preferences and receipt of aggressive end-of-life (EOL) care.<sup>5,6,7</sup> Spiritual care (SC)—recognition and support of the R/S dimensions of illness—is considered by patients to be an important aspect of EOL care<sup>8-11</sup> and is also associated with key patient outcomes, including patient QOL,<sup>12</sup> satisfaction with hospital care,<sup>13,14</sup> increased hospice use,<sup>12</sup> decreased aggressive medical interventions,<sup>12</sup> and medical costs.<sup>15</sup> However, patients with advanced illness report

that SC is infrequently provided by their medical caregivers.<sup>5,8,11,14</sup> This omission is notable in light of the aforementioned study findings and the resultant inclusion of SC in palliative care guidelines.<sup>16,17</sup>

The infrequency of SC by medical professionals prompts the question: Why is SC infrequently provided in the care of patients at the EOL? Possible explanations include concerns regarding the appropriateness of SC,<sup>18-21</sup> lack of time,<sup>22,23</sup> and insufficient training.<sup>24</sup> However, little data are available that address why SC is frequently absent in the setting of EOL care. Data are required that determine factors contributing to the infrequency of SC to facilitate the provision of SC at the EOL in accordance with care quality guidelines.<sup>16,17</sup>

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The Religion and Spirituality in Cancer Care (RSCC) study investigates perceptions of SC from the viewpoints of patients with advanced cancer, nurses, and physicians. We hypothesized that SC is infrequently provided by nurses and physicians at the EOL because of perceptions that SC (1) is not an important part of EOL cancer care, (2) is inappropriate in the patient-practitioner relationship, and (3) does not have a beneficial impact when provided and because medical practitioners (4) lack adequate time to provide SC and (5) lack SC training.

## PATIENTS AND METHODS

### Sample

Enrollment ran between March 2006 and April 2008 for patients and October 2008 through January 2009 for practitioners. Eligibility criteria for patients included an advanced, incurable cancer diagnosis; active receipt of palliative radiotherapy; age  $\geq$  21 years; and adequate stamina to undergo a 45-minute interview. Excluded patients were those meeting criteria for delirium or dementia by neurocognitive examination (Short Portable Mental Status Questionnaire<sup>25</sup>) and those not speaking English or Spanish. Oncology physicians and nurses were eligible if they cared for patients with incurable cancer.

### Protocol

All research staff underwent a 1-day training session in the study protocol and scripted interview procedure. Patients and practitioners were from four sites in Boston, MA: Beth Israel Deaconess Medical Center, Boston University Medical Center, Brigham and Women's Hospital, and Dana-Farber Cancer Institute. Patient recruitment occurred over 29 recruitment weeks (based on availability of a recruiter) during the patient study period. Each recruitment week, radiation oncologists were consecutively selected, and all of their eligible patients under treatment within that 1-week recruitment period were approached for study participation. To mitigate selection bias, eligible patients were informed, "You do not have to be religious or spiritual to answer these questions. We want to hear from people with all points of view." Nurses and physicians were identified by collecting e-mail information from departmental databases and were invited to participate via e-mail containing a link to an online survey. All participants provided informed consent (implied consent for practitioners given all elements of consent included in the survey) according to protocols approved by each site's human subjects committee. Respondents received a \$10 gift card for participation. Of 103 patients approached, 75 participated (response rate = 73%), with no differences in participants versus nonparticipants in age, sex, or race. The most frequent reasons for not participating were "not interested" (n = 8, 32%) and "too busy" (n = 7, 28%). Six patients were too ill to complete the interview, yielding 69 patients (93% of 75). Of 537 nurses and physicians contacted, 339 responded (response rate = 63%; 59% among physicians, 72% among nurses). Eight practitioners indicated they do not provide care to patients with incurable cancer, and nine did not finish the questionnaire, yielding 322 respondents (95% of 339, 204 physicians and 118 nurses).

### Measures

**Characteristics.** Patient demographic information was self-reported, and disease information was abstracted from medical charts. Karnofsky performance status was physician-assessed. Practitioner demographic information (age, sex, race, field of oncology, and years of practice) was self-reported. Sample characteristics are listed in Table 1.

**Religiosity/spirituality.** Patients and practitioners reported religiosity and spirituality using items from the validated Multidimensional Measure of Religiosity and Spirituality.<sup>26</sup> Also assessed were religious affiliation, religious service attendance,<sup>26</sup> and intrinsic religiosity.<sup>27</sup>

**Perceptions and practices of SC.** The Perceptions and Practices of SC questionnaires were developed by an expert panel and piloted within patients with advanced cancer and oncology nurses and physicians until no further survey modifications were made after three consecutive implementations. The surveys (Data Supplement) include definitions provided to participants (religion, spirituality, and SC), eight SC examples based on the literature (Data

**Table 1.** Sample Characteristics of Patients With Advanced Cancer, Oncology Nurses, and Oncology Physicians (N = 391)

Characteristic	Patients (n = 69)		Nurses (n = 118)		Physicians (n = 204)		P*
	No.	%	No.	%	No.	%	
Female sex	32	46	116	98	88	42	< .001
Age, years	61	11.9	46	9.1	41	9.8	< .001
Mean							
SD							
Race/ethnicity†‡							
White	57	85	108	94	154	77	
Black	8	10	2	2	4	2	
Asian, Indian, Pacific Islander	1	1	2	2	35	17	
Hispanic	1	1	1	1	3	2	
Other	1	1	1	1	5	2	< .001
Field of oncology	NA						
Medical oncology			91	77	113	54	
Radiation oncology			13	11	46	22	
Surgical oncology			9	8	34	16	
Palliative care			5	4	16	8	< .001
Years in practice†	NA						
Resident or fellow			–		67	33	
1-5			24	20	38	17	
6-10			24	20	35	17	
11-15			15	13	23	11	
16-20			12	10	20	10	
21+			43	36	26	12	< .001
Education, years	15	3	NA		NA		NA
Mean							
SD							
Religiosity‡§							
Not at all religious	13	19	29	26	62	31	
Slightly religious	17	25	33	30	66	33	
Moderately religious	25	37	43	38	54	27	
Very religious	13	19	7	6	17	9	.019
Spirituality†§							
Not at all spiritual	5	7	6	5	30	15	
Slightly spiritual	14	21	18	16	57	29	
Moderately spiritual	24	35	58	52	75	38	
Very spiritual	25	37	30	27	37	19	< .001
Religious tradition†							
Catholic	32	47	70	63	47	24	
Protestant	22	32	17	15	45	23	
Jewish	5	7	6	5	51	26	
Muslim	1	1	0	0	2	1	
Hindu	0	0	2	2	11	6	
Buddhist	2	3	0	0	3	2	
No religious tradition	2	3	6	5	22	11	
Other	4	6	11	10	18	9	< .001

Abbreviations: NA, not assessed; SD, standard deviation.

\*P values based on  $\chi^2$  test for categorical data. Age based on F statistic from analysis of variance.

†Categories missing  $\leq$  5% of responses. Category percentages not adding to 100 are because of rounding.

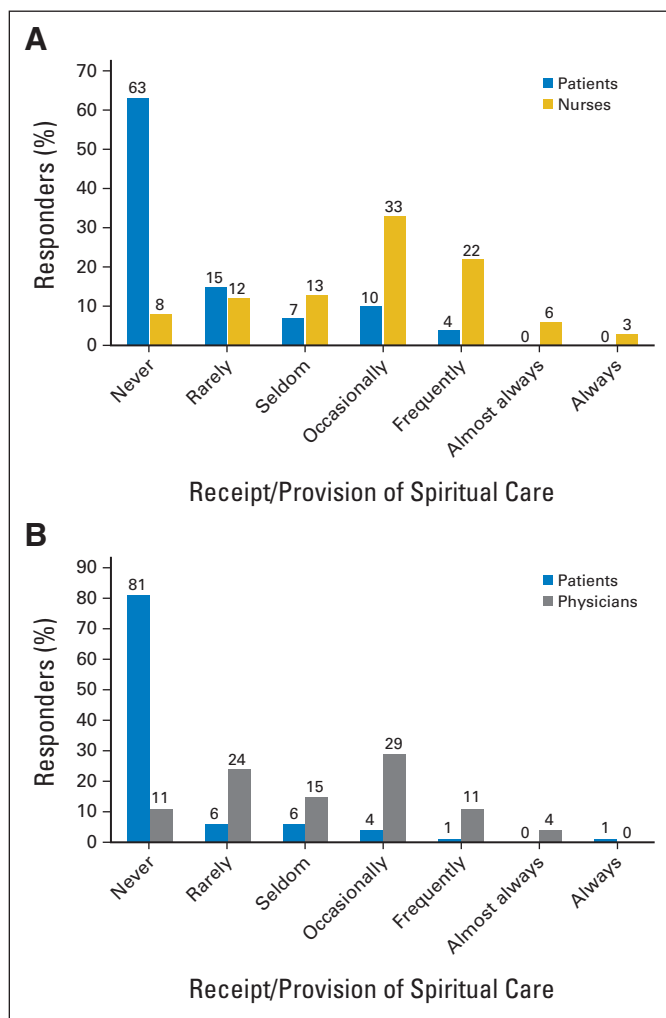
‡Refused to answer: one patient, two nurses, and five physicians.

§Patients were the most likely to rate themselves as "moderately" or "very" religious and spiritual (53%), in contrast to nurses and physicians (38% and 32% respectively,  $P < .001$ ). Nurses were the most likely to rate themselves as "moderately" or "very" spiritual and "not at all" or "slightly" religious (42%) in contrast to patients and physicians (19% and 25% respectively,  $P < .001$ ). Physicians were the most likely to rate themselves as "not at all" or "slightly" religious and spiritual (39%), in contrast to patients and nurses (25% and 17% respectively,  $P < .001$ ).

Supplement),<sup>16,29</sup> and assessments of the following aspects of SC within advanced cancer care:

**Frequency of SC.** Quantitative assessment of SC frequency was determined by participants' reports of actual SC receipt/provision experiences. After reviewing the eight SC examples (Data Supplement), patients indicated the oncology nurses and physicians involved in their care and which provided any SC during the course of their relationship. Similarly, after reviewing the SC examples, nurses and physicians reported, for the last three patients with advanced cancer seen in clinic, whether they had provided any SC at any point during each patient's care. Patients and practitioners also provided descriptive assessments of the frequency of SC in advanced cancer care on a 7-point scale ranging from "never" to "always" (Fig 1).

**Perceived importance of SC.** Patients rated the importance of nurses and physicians providing SC on a 4-point scale from "not at all" to "very important" in response to the question, "How important is it for cancer nurses [or physicians] to consider the religious/spiritual needs of cancer patients?"



**Fig 1.** Patients with advanced cancer (n = 68), oncology nurses (n = 114),\* and oncology physicians (n = 204) report of the frequency of receipt/provision of spiritual care (SC). Patients, responding separately concerning nurses and physicians, were asked: "In your experience with cancer, how often do your cancer [nurses or doctors] perform ANY type of spiritual care?" Nurses and physicians were asked: "How often do you offer any type of spiritual care during the course of your relationship with an advanced, incurable cancer patient?" Significant differences existed in perceptions of SC frequency between patients and nurses (mean 1.78 v 3.81; *P* < .001) and patients and physicians (mean 1.46 v 3.19; *P* < .001). \*Sample size reduced from 118 because of four respondents with missing data.

Nurses and physicians were asked, "How often do you think cancer [nurses or physicians] should include any type of spiritual care at some point during the course of care of advanced cancer patients?" Response options were on a 7-point scale from "never" to "always."

**Appropriateness of SC.** All participants rated the appropriateness of the eight SC examples (Table 2; Data Supplement) on a 7-point scale from "not at all" to "always appropriate." Item ratings were summed to generate an overall SC appropriateness score (possible range, 6 to 48).

**Impact of SC.** Patients who had received SC from nurses or physicians were asked, "How positive or negative was the spiritual care experience for you?" Practitioners who reported providing SC to recently seen patients with advanced cancer were asked, "Overall, how positively or negatively did the spiritual care experience affect your relationship with this patient?" Response options were on a 7-point scale from "very negative" to "very positive."

**Role of time in SC provision.** Practitioners rated the degree to which time constraints limited SC provision on a 4-point scale from "not significant" to "very significant."

**SC training.** Practitioners answered yes or no to the following questions related to SC training: (1) "Have you ever received training in providing any type of spiritual care?" and (2) "Would you desire further training in how to appropriately provide spiritual care to your patients?"

**Statistical Methodology**

$\chi^2$  tests were used to compare demographic information between patients, nurses, and physicians.  $\chi^2$  tests were also used to compare patient, nurse, and physician perceptions of the following: appropriateness of each SC type, importance of SC, perceived SC frequency, and perceived impact of SC. Where relevant, responses were dichotomized as "never/rarely" versus "occasionally/frequently/almost always/always."  $\chi^2$  tests using all seven categories without dichotomization gave similar results.  $\chi^2$  tests were used to compare nurse and physician responses to questions regarding SC training.

Univariate and multivariate linear and logistic regression analyses were used to identify predictors of overall SC appropriateness ratings for patients, nurses, and physicians and predictors of actual SC provision for nurses and physicians. multivariate analyses included demographic characteristics, patient Karnofsky performance status, nurse/MD professional characteristics, R/S variables (religiousness, spirituality, affiliation, religious service attendance, and intrinsic religiosity), and SC time and training.

All reported *P* values are two-sided and considered significant when *P* < .05. Statistical analyses were performed with R (version 2.13.1).

**RESULTS**

**Sample Characteristics**

Sample characteristics are reported in Table 1. Patients, nurses, and physicians differed in R/S characteristics, with patients being more religious, and patients and nurses being more spiritual than physicians. Patients and nurses were most likely to be Catholic, whereas physicians were most frequently Jewish.

**Frequency of Spiritual Care**

In quantitative assessments of patient receipt of SC from oncology practitioners, patients reported having ever received SC from 13% of their nurses and 6% of their physicians (*P* = .043). In quantitative assessments of SC provision by practitioners to patients recently seen in clinic, nurses reported providing SC to 31% of their patients, and physicians reported having providing SC to 24%. Participants' descriptive assessments of SC frequency in the advanced cancer setting are shown in Figure 1.

**Perceived Importance of SC**

Most patients indicated that it was "moderately" or "very important" for physicians and nurses to consider patients' R/S needs as part of

cancer care (58% and 62%, respectively; at least “slightly important,” 86% and 87%, respectively). Most nurses and physicians (87% and 80%,  $P$  for difference = .16) thought SC should at least “occasionally” be provided during the course of care of patients with advanced cancer. Nurse and physician responses on a 7-point scale were: “never,” 1% and 3%; “rarely,” 8% and 9%; “seldom,” 4% and 8%; “occasionally,” 27% and 37%; “frequently,” 24% and 23%; “almost always,” 22% and 15%; and “always,” 14% and 5%, respectively. Differences between nurses and physicians’ responses were significant ( $P = .03$ )

### Appropriateness of SC

Majorities of patients (62% to 90%), nurses (76% to 99%), and physicians (60% to 98%) rated each of the eight SC examples as at least “occasionally appropriate” in the advanced cancer setting (Table 2), although patient appropriateness ratings were often lower than those of nurses and physicians.

Multivariate analyses assessed predictors of overall perceptions of SC appropriateness at the EOL (summary score of eight SC appropriateness ratings, with higher scores indicating greater perceived appropriateness). In multivariate analyses of patient-assessed appropriateness of nurse-provided and physician-provided SC, only female sex was significant ( $\beta = 5.5$ ,  $P = .03$ , and  $\beta = 5.0$ ,  $P = .046$ , respectively). In multivariate analyses assessing nurse perceptions of SC, only greater intrinsic religiosity predicted higher ratings of SC appropriateness ( $\beta = 3.47$ ,  $P = .02$ ). In multivariate analyses assessing physician perceptions of SC, only greater physician spirituality was significantly related to higher ratings of SC appropriateness ( $\beta = 4.64$ ,  $P = .001$ ).

### Assessment of SC Experiences

Table 3 shows participants’ assessments of the impact of SC experiences. Large majorities of patients, nurses, and physicians rated their SC experiences positively, and no participants indicated that SC had a negative impact. Physicians rated SC experiences less positively than did patients ( $P = .02$ ) and nurses ( $P < .001$ ).

### SC Time

Most nurses and physicians indicated that insufficient time was a “moderately” or “very significant” limitation to SC provision (71% and 73%, respectively;  $P = .39$ ).

### SC Training

Most nurses and physicians had never received SC training (88% v 86%;  $P = .83$ ). Majorities of practitioners desired SC training, although more nurses than physicians desired such training (79% v 51%,  $P < .001$ ).

### Predictors of SC Provision

Univariate and multivariate predictors of actual SC provision by practitioners to the last three patients with advanced cancer recently seen are shown in Table 4. Prior SC training was the strongest predictor of SC provision.

## DISCUSSION

This is the first study to compare the attitudes and practices of SC of patients with advanced cancer, nurses, and physicians within the same

**Table 2.** Patient (n = 68), Nurse (n = 114), and Physician (n = 204) Perceptions of the Appropriateness of the Provision of Spiritual Care by Oncology Providers to Patients With Advanced Cancer

Spiritual Care Examples	Appropriateness of Nurse Provision of Spiritual Care*					Appropriateness of Physician Provision of Spiritual Care*				
	Nurse-Rated Appropriateness		Patient-Rated Appropriateness		Pt	Physician-Rated Appropriateness		Patient-Rated Appropriateness		Pt
	No.	%	No.	%		No.	%	No.	%	
Asking about R/S background	111	97	55	80	< .001	192	94	57	83	.007
Encouraging spiritual activities or beliefs	113	99	50	72	< .001	198	97	50	72	< .001
Inviting patients to talk about R/S	113	99	58	84	< .001	189	93	57	83	.03
Asking how patients’ R/S affects treatment decisions	108	95	53	77	.001	185	91	55	80	.05
Referral to a chaplain	112	98	62	90	.06	200	98	60	87	.002
Asking if patient wants R/S supporters in their care	113	99	59	86	.001	194	95	60	87	.09
Praying with patients at their request‡	95	83	48	70	.07	132	65	49	71	.33
Offering prayer for a patient‡	87	76	43	62	.11	122	60	43	62	.72

NOTE. Sample size reduced from 118 because of four respondents with missing data.

Abbreviation: R/S, religion and spirituality.

\*Responses dichotomized to inappropriate (never/rarely appropriate) versus appropriate (occasionally/frequently/almost always/always appropriate).

† $P$  values based on  $\chi^2$  test.

‡For a detailed Religion/Spirituality Cancer Care report on patient-practitioner prayer, see Balboni et al.<sup>28</sup>



Why Spiritual Care Is Infrequent at the End of Life

**Table 3.** Patient, Nurse, and Physician Assessment of the Impact of Actual Spiritual Care Experiences As Part of the Patient-Practitioner Relationship

Assessment	Patient-Nurse Relationship*			Patient-Physician Relationship*		
	Patient Response (%)	Nurse Response (%)	P†	Patient Response (%)	Physician Response (%)	P†
Very positive	67	41		72	20	
Moderately positive	17	29		16	29	
Mildly positive	17	24		8	33	
No effect	0	6		4	17	
Mildly negative	0	0		0	0	
Moderately negative	0	0		0	0	
Very negative	0	0	.20	0	0	.02

\*The average appraisal scores based on a scale of 1 (very negative) to 7 (very positive) were 6.50 for patients, 5.05 for nurses, and 4.53 for physicians.  
 †Pairwise *t* test *P* values, adjustment method Holm (scaled ratings).

institutions. We hypothesized five possible reasons underlying the infrequency of SC at the EOL. First, we anticipated that participants may not view SC as an important aspect of patients' EOL care. In contrast to this hypothesis, majorities of participants thought that SC should at least occasionally be provided during the course of care to a patient with advanced cancer. Second, in anticipation of possible ethical concerns,<sup>19-21</sup> we hypothesized that SC may not be performed because of low perceived appropriateness of SC in the clinical encounter. To the contrary, we found that majorities endorsed the appropriateness of the eight SC types. Third, we hypothesized that SC may be

infrequent because of a perceived lack of benefit (or even perceived harm) to patients when SC had occurred. However, patients and practitioners viewed their SC experiences as beneficial, with no participants reporting a negative outcome of an SC encounter. Fourth, we hypothesized that lack of time for SC provision<sup>22</sup> would inhibit SC provision. However, although time was frequently endorsed as a barrier to SC provision by practitioners, it was not a predictor of actual SC provision. Finally, we hypothesized that lack of SC training would contribute to the lack of SC provision at the EOL. In corroboration of this hypothesis, our analyses indicated that lack of SC training is the

**Table 4.** Univariate and Multivariate Predictors of Nurses and Physicians Providing Spiritual Care to Patients With Advanced Cancer

Variable	Univariate Analyses			Multivariate Analyses*		
	Odds Ratio†‡	95% CI	<i>P</i>	Odds Ratio	95% CI	<i>P</i>
<b>Nurses</b>						
Female			NE			NE
Non-Christian affiliation	1.60†	0.44 to 5.78	.48	2.70	0.93 to 7.69	.07
Moderately to very religious	1.34†	0.63 to 2.87	.45	1.24	0.42 to 3.69	.69
Intrinsic religiosity§	1.47†	0.67 to 3.19	.34	1.09	0.43 to 2.79	.85
Religious service attendance	0.76†	0.33 to 1.73	.51	0.34	0.011 to 1.10	.07
Moderately to very spiritual	2.92†	1.15 to 7.42	.02	2.67	0.90 to 7.95	.06
Lack of time	0.91†	0.40 to 2.08	.82	0.79	0.31 to 2.01	.62
Received spiritual care training	10.42†	1.3 to 83.19	.03	11.20	1.24 to 101	.03
<b>Physicians</b>						
Female	2.86‡	1.59 to 5.13	.004	2.23	1.09 to 4.55	.03
Non-Christian affiliation	0.63‡	0.36 to 1.10	.11	0.81	0.39 to 1.69	.57
Moderately to very religious	1.31‡	0.73 to 2.33	.37	0.82	0.32 to 2.10	.68
Intrinsic religiosity§	4.05‡	2.22 to 6.98	< .001	3.32	1.58 to 6.96	.002
Religious service attendance	1.3‡	0.68 to 2.49	.43	0.90	0.35 to 2.35	.83
Moderately to very spiritual	3.85‡	2.12 to 6.98	< .001	2.25	0.95 to 5.33	.07
Lack of time	1.62‡	0.85 to 3.07	.14	1.56	0.74 to 3.29	.25
Received spiritual care training	5.89‡	2.14 to 16.22	< .001	7.22	1.91 to 27.30	.004

NOTE. Provision of spiritual care was defined as any versus no provision of spiritual care during the course of a nurse or physicians' relationship with the last three patients with advanced cancer seen in clinic.

Abbreviation: NE, not estimable.

\*Multivariate analysis performed with all variables entered simultaneously into the model.

†Univariate risk ratios (RRs) for nurses are as follows: non-Christian affiliation, RR = 1.79, *P* = .04; moderately to very religious RR = 1.13, *P* = .44; intrinsic religiosity, RR = 1.17, *P* = .33; religious service attendance, RR = 0.89, *P* = .52; moderately to very spiritual, RR = 1.70, *P* = .06; lack of time, RR = 0.96, *P* = .81; and received spiritual care training, RR = 1.72, *P* < .001.

‡Univariate risk ratios for physicians are as follows: female sex, RR = 1.66, *P* < .001; non-Christian affiliation, RR = 1.26, *P* = .11; moderately to very religious, RR = 1.14, *P* = .36; intrinsic religiosity, RR = 1.94, *P* < .001; religious service attendance, RR = 1.14, *P* = .42; moderately to very spiritual, RR = 2.04, *P* < .001; lack of time, RR = 1.28, *P* = .17; and received spiritual care training, RR = 1.87, *P* < .001.

§Intrinsic religiosity is the degree to which one's religiousness permeates one's daily life, including one's vocation. It was assessed based on a question from a national study of physicians<sup>22</sup>: "Please indicate the degree to which you agree with the following statement: My religious/spiritual beliefs influence my practice of medicine," and was measured on a 5-point scale ranging from "strongly agree" to "strongly disagree." Analyses dichotomized to "strongly agree/somewhat agree" versus "neutral/somewhat disagree/strongly disagree."

strongest predictor of SC provision, after accounting for other confounding variables including R/S and other practitioner demographic characteristics. These findings suggest that training of medical practitioners in SC provision is a primary means of better incorporating SC into EOL care in keeping with national palliative care guidelines.<sup>16,17</sup>

In our study, 12% to 14% of medical professionals received SC training. This finding is congruent with a national physician survey<sup>24</sup> but was surprisingly low for nurses given the presence of SC as part of nursing education guidelines.<sup>30</sup> The availability of SC training has increased recently for physicians,<sup>31</sup> but largely remains voluntary, self-selecting,<sup>24</sup> and, consequently, infrequent. SC guidelines<sup>31</sup> indicate that nurses and physicians play a necessary role by taking spiritual histories and involving chaplaincy/clergy in patient care when needed. Hence SC training prepares nurses and physicians in taking a spiritual history,<sup>32</sup> prioritizing referral to chaplaincy/clergy when there are spiritual needs,<sup>31</sup> and equipping practitioners in navigating R/S when it intersects with medical decision making.<sup>7,12,33</sup> The time required to provide SC is resultantly largely limited to taking a spiritual history, such as Pulchaski's four-item FICA assessment—a simple R/S screening tool developed for medical professionals.<sup>31</sup> This critical but time-limited role is possibly why SC training, and not adequacy of time, strongly predicted SC provision. Consider the example of a highly religious, terminally ill patient with advanced cancer who wishes to continue aggressive therapies because of a belief in miracles.<sup>33</sup> If the clinician does not take a spiritual history, the clinician may never recognize the underlying religious convictions that can impact EOL decision making<sup>7,33,34</sup> and hence never incorporate the patient's R/S beliefs and supporters in care, including EOL discussions. Studies suggest that inclusion of spiritual support in EOL care is associated with better patient QOL, less aggressive interventions, and increased hospice use.<sup>12</sup> Our study suggests that SC training is necessary to advance the inclusion of SC into the care of patients with serious illness and to improve EOL outcomes.<sup>12,15</sup>

In this study there were also notable differences between patients and practitioners in regard to R/S characteristics and perceptions of SC, and practitioner R/S characteristics seemed to influence perceptions and practices of SC to patients at the EOL. First, most patients perceived SC to be infrequently provided by practitioners, whereas nurses and physicians perceived the provision of SC to occur more frequently. Perception differences were also noted between patients and practitioners in regard to SC appropriateness and impact. Although majorities of respondents viewed each SC type as appropriate, perceptions of appropriateness were higher among practitioners. In contrast, although nearly all respondents indicated that SC had a positive impact, patients rated the impact of SC more positively than did physicians. Although social desirability bias on the part of clinicians and recall bias on the part of patients may account for some of these differences, other possibilities include disparate perceptions of what defines SC. Despite the provision of definitions to participants, patients' and practitioners' understandings of R/S and SC may differ according to personal views. In favor of this interpretation is evidence that many patients with advanced cancer tend to be more religious and spiritual than practitioners and consequently associate SC with particular R/S beliefs, practices, and communities.<sup>2</sup> In contrast, Daaleman et al<sup>23</sup> found that physicians conceptualized SC primarily in nonreligious categories of an intentional human presence and partnership. Hence patients' frequently more religiously oriented versus practitioners' more humanistic understandings of SC may underlie differences

in perceived frequency, appropriateness, and assessment of SC benefits. For example, if patients view SC in more particular religiously oriented terms than do clinicians, they would understandably view SC as occurring less frequently than do clinicians who conceptualize SC in a more humanistic manner (eg, human presence). In addition, practitioner R/S characteristics including spirituality and intrinsic religiosity were found to influence perceptions of appropriateness and actual SC provision. These findings highlight the need for a patient-centered approach to spiritual care.<sup>31</sup> Provision of the basic elements of SC—spiritual histories and referrals to chaplaincy—should not depend on a clinician's R/S characteristics, but rather should be grounded in the R/S needs of patients. This further underscores the importance of practitioner SC training that not only equips clinicians with the necessary, fundamental SC skills, but also advances a patient-centered understanding of SC.

Study limitations include that, although the response rates for patients and practitioners were high, selection bias may be present. Furthermore, selection factors influencing who receives SC may affect perceptions of SC experiences. Participants surveyed were from a single, US region. Given this region's lower national averages of R/S,<sup>35</sup> findings may underestimate positive perceptions of SC in the EOL setting. The content of SC training received is unknown; further research is required to define and optimize SC training. Finally, the generalizability of these findings to other diseases or stages of illness remains unclear.

In conclusion, patients with advanced cancer, nurses, and physicians recognize the importance, appropriateness, and beneficial impact of SC. The rarity of SC may be primarily due to the frequent lack of SC training. Routine SC training may hence be required to overcome SC infrequency and to achieve patient-centered R/S competence in EOL care, in accordance with national quality standards.<sup>16,17</sup> Further research is required to develop conceptual models of SC training—including spiritual history-taking,<sup>32</sup> professional roles within the multidisciplinary SC team,<sup>11,31</sup> engagement in patient-practitioner R/S practices such as prayer,<sup>28,29</sup> patient-centeredness in SC,<sup>31</sup> and recognition of the biases created by practitioners' personal R/S (or non-R/S) views<sup>11,21,27</sup>—and to test their impact on SC provision and patient outcomes.<sup>12,15</sup> Evidenced-based SC training holds promise to advance R/S competency in EOL care and to improve patient well-being and medical care quality at the EOL.<sup>12,15</sup>

#### AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The author(s) indicated no potential conflicts of interest.

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