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ORIGINAL ARTICLE

Whose role? Oncology practitioners' perceptions of their role in providing spiritual care to advanced cancer patients

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Abstract
Purpose The purpose of this study is to determine how oncology nurses and physicians view their role in providing spiritual care (SC), factors influencing this perception, and how this belief affects SC provision.
Methods This is a survey-based, multisite study conducted from October 2008 to January 2009. All oncology physicians and nurses caring for advanced cancer patients at four Boston, MA cancer centers were invited to participate; 339 participated (response rate=63 %).
Results Nurses were more likely than physicians to report that it is the role of medical practitioners to provide SC, including for doctors (69 vs. 49 %, $p<0.001$), nurses (73 vs. 49 %, $p<0.001$), and social workers (81 vs. 63 %, $p=0.001$). Among nurses, older age was the only variable that was predictive of this belief [adjusted odds ratio (AOR) 1.08; 1.01–1.16, $p=0.02$]. For nurses, role perception was not related to actual SC provision to patients. In contrast, physicians' role perceptions were influenced by their intrinsic religiosity (AOR, 1.44; 95 % CI, 1.09–1.89; $p=0.01$) and spirituality (AOR, 6.41; 95 % CI, 2.31–17.73, $p<0.001$). Furthermore, physicians who perceive themselves as having a role in SC provision reported greater SC provision to their last advanced cancer patients seen in clinic, 69 % compared to 31 %, $p<0.001$.
Conclusions Nurses are more likely than physicians to perceive medical practitioners as having a role in SC provision. Physicians' perceptions of their role in SC provision are influenced by their religious/spiritual characteristics and are predictive of actual SC provision to patients. Spiritual care training that includes improved understanding of clinicians' appropriate role in SC provision to severely ill patients may lead to increased SC provision.

Keywords Palliative care · Religion · Spirituality · Spiritual care · Cancer

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Introduction

Patient spirituality is frequently cited as a critical component of wellbeing in the context of illness, particularly for those with advanced disease [1–3]. Research has demonstrated its association with better quality of life (QOL) and symptom tolerance and less anxiety and depression [4, 5]. Furthermore, spiritual concerns are also common in the setting of serious illness and can result in decrements to patient quality of life [6]. Notably, when medical care includes attention to the spiritual dimensions of illness, patients have been found to have better

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quality of life, to transition more frequently to hospice care, and to avoid aggressive medical interventions at life's end [4].

As a result of these data pointing to the importance of spirituality, attention to the spiritual dimensions of illness—spiritual care (SC)—is increasingly recognized as an essential component of medicine [7, 8] and of holistic palliative care [9]. For example, SC has been incorporated into quality guidelines for the care of patients with advanced disease. The National Consensus Project for Quality Palliative Care includes spiritual care as one of the eight domains of palliative care. SC is likewise included in many other national and international palliative care guidelines [10–12]. However, although the importance of SC is emphasized across palliative care guidelines, its application within clinical settings remains limited. Indeed, despite the evidence base and recommendations, the majority of patients at the end of life have not had their health care practitioner inquire about or provide spiritual care [13, 14].

Religious communities play a key role in the provision of SC, but recent research indicates that many patients also want their health care providers to address this dimension of their care [8, 15]. This includes attention to personal values and sources of meaning, which may be religious or secular, the latter becoming increasingly important in Western cultures [16]. Furthermore, as reflected in the SC model that was originally proposed at the 2009 Consensus Conference on Spiritual Care as a Dimension of Palliative Care [17, 18], SC requires the role of medical care providers, particularly in performing initial spiritual histories and assessing when to refer patients to chaplaincy. However, despite this interdisciplinary model of spiritual care and patient SC preferences, data suggest that although many health care providers are willing to provide spiritual care (SC) at the end of life [19], they perceive barriers to its provision in medical treatment settings. These barriers include inadequacy of SC training, the lack of private space, lack of time, and the perception that SC is better performed by others [20]. In addition to identifying barriers to SC provision, it is also important to identify practitioners' perceptions of their role in SC provision. A current understanding of medical providers' perceptions of their role in SC provision can inform SC training of practitioners.

The Religion and Spirituality in Cancer Care study is a multisite study investigating the perspectives of nurses and physicians caring for patients with advanced cancer regarding spiritual care. As part of this study, we aimed to understand oncology nurse and physician perceptions of their role in providing SC, factors associated with role perception, and how role perception is related to provision of SC to patients.

Materials and methods

Sample

Oncology physicians and nurses who care for patients with incurable cancer were invited to participate in this study between October 2008 and January 2009 from four cancer treatment centers in Boston, MA: Beth Israel Deaconess Medical Center, Boston University Medical Center, Brigham and Women's Hospital, and Dana-Farber Cancer Institute. Nurses and physicians who responded to the survey but who indicated that they did not provide care for cancer patients were excluded.

Protocol

Nurses and physicians were identified from departmental e-mail databases and from medical, surgical, and radiation oncology departmental websites. They were invited via e-mail to participate in an online survey. Survey participants were provided a $10 gift card upon completion of the survey. The research ethics boards of all sites approved "implied informed consent" for participants based on all elements of informed consent within the introductory portion of the survey, followed by survey completion by the participant.

Of 537 nurses and physicians contacted, 339 responded (response rate=63 %; 59 % among physicians, 72 % among nurses). Eight practitioners were excluded because they indicated they did not provide care to patients with incurable cancer, and 9 did not finish the questionnaire, yielding a final sample of 322, of whom 204 were physicians and 118 were nurses.

Measures

The survey development has been described previously [19] and underwent piloting among medical providers until no further changes were made after two administrations. The survey was developed by an expert panel, which included expertise in palliative care (Tracy Balboni, MD, MPH; Susan Block, MD), oncology (Tracy Balboni, MD, MPH; Andrea Ng, MD; Susan Block, MD), theology (Michael Balboni, PhD, ThM), and survey methods (Tracy Balboni, MD, MPH; Andrea Ng, MD; Holly Prigerson, PhD). Variables assessed included the following:

Characteristics. Health care practitioner demographic information was self-reported on the following: gender, age, race or ethnicity, years in practice in oncology, field of oncology (surgical radiation, palliative, medicine, medical oncology, or radiation oncology), and hospital. Sample characteristics are listed in Table 1.

Table 1 Sample characteristics

Characteristic	Nurses (*N*=114)				Physicians (*N*=204)				
	No.	%	Mean	SD	No.	%	Mean	SD	p^c
Female gender	2	98.2			112	38.1			
Age, years			45.4	9.2			40.9	9.9	<0.001
Race/ethnicity[a,b]									<0.001
White	102	94.7			155	76.0			
Black					4	2.0			
Asian, American, Indian, Pacific Islander	2	1.8			35	17.2			
Hispanic	1	1.8			3	1.5			
Other	0	0.90			0	0			
Religiousness[a,b]									0.02
Not at all religious	29	25.4			62	30.4			
Slightly religious	33	28.9			66	32.4			
Moderately religious	43	37.7			54	26.5			
Very religious	7	6.1			17	8.3			
Spirituality[a,b]									<0.001
Not at all spiritual	6	5.3			30	14.7			
Slightly spiritual	18	15.8			57	27.9			
Moderately spiritual	58	50.9			75	36.8			
Very spiritual	30	26.3			37	18.1			
Religious tradition[a]									<0.001
Catholic	70	61.4			47	23.0			
Other Christian traditions	17	14.9			45	22.1			
Jewish	6	5.3			51	25.0			
Muslim	0	0			2	1.0			
Hindu	2	1.8			3	1.5			
Buddhist	0	0			11	5.4			
No religious tradition	6	5.3			22	10.8			
Other	11	9.6			18	8.8			
Field of oncology									<0.001
Medical	90	78.9			110	53.9			
Radiation	13	11.4			46	22.5			
Surgical	7	6.1			32	15.7			
Palliative care	4	3.5			16	7.8			
Years in practice[a]									NA
Resident or fellow	–				67	32.8			
1–5	24	21.1			35	17.2			
6–10	24	21.1			34	16.7			
11–15	14	12.3			23	11.3			
16–20	11	9.6			20	9.8			
21+	41	36.0			2	12.3			

NA not assessed, *SD* standard deviation

[a] Categories missing ≤5 % of responses. Category percentages not adding to 100 are because of rounding

[b] Refused to answer—two nurses, five physicians

[c] p values based on X^2 test for categorical data. Age based on F statistic from analysis of variance

Perceived roles in SC provision. Health care practitioners were asked to define who they perceived to have a role in providing SC. SC was defined as "care that supports the spiritual health of patients," with spirituality defined as "a search for or connection to what is divine or sacred." All participants were asked, "In your opinion, who has a role in providing spiritual care to advanced cancer patients? Please check all that apply." Participants could select

from the following categories: hospital chaplains, members from the patients' spiritual community, nurses, doctors, or social workers.

Frequency of SC provision. This was first assessed with the question, "How often do you offer any type of spiritual care during the course of your relationship with an advanced, incurable cancer patient?" Responses were scored on a 7-point scale, from 1 (never) to 7 (always). Participants were then asked, "Think back to the past 3 advanced, incurable cancer patients you saw. To how many of those patients have you provided ANY type of spiritual care during the course of their treatment?" Responses were one of the following: zero, one patient, two patients, or three patients.

Religiousness. Practitioners reported personal religiousness using items from the validated Multidimensional Measure of Religiousness and Spirituality [21]. Religion was defined within the survey as "a tradition of spiritual beliefs and practices shared by a group of people." Participants were asked, "To what extent do you consider yourself a religious person?" Response options were very religious, moderately religious, slightly religious, or not religious at all. Participants were also asked to indicate their religious tradition, their frequency of attendance at organized religious activities, and their intrinsic religiosity. Intrinsic religiosity is the degree to which one's religiousness permeates one's daily life, including one's vocation. It was evaluated based on the question, "Please indicate the degree to which you agree with the following statement: my religious/spiritual beliefs influence my practice of medicine" [22]. Participants were asked to answer this question on a 5-point scale from (1) strongly disagree to (5) strongly agree.

Spirituality. Practitioners reported personal spirituality using items from the validated Multidimensional Measure of Religiousness and Spirituality [20]. Spirituality was defined within the survey as "a search for what is divine or sacred." Participants were asked, "To what extent do you consider yourself a spiritual person?" Response options were very spiritual, moderately spiritual slightly spiritual, or not spiritual at all.

Overall SC appropriateness. A list of potential ways that oncology physicians and nurses can support the spiritual health of patients was provided. Participants were then asked, "Please indicate your opinion of ideally how appropriate it is for oncologists or nurses to perform each spiritual care example when caring for advanced, incurable cancer patients." Each example was rated on a 6-point Likert scale, from (1) never appropriate to (6) always appropriate. A total appropriateness score was calculated based on the sum of responses to eight SC examples.

Overall SC barriers. Participants were provided a list of reasons that spiritual care might not be performed, even when ideally it would be performed [20]. A total barrier score was calculated based on the sum of 10 responses.

SC training. Participants were asked to answer yes or no to the question, "Have you ever received training in providing any type of spiritual care?"

Statistical methodology

X^2 tests were used to compare demographic information between nurses and physicians. X^2 tests were also used to compare nurse and physician responses to the following: the role of providing SC, overall frequency of SC provision, and provision of SC to any of the respondents' last three patients with advanced cancer. Differences between nurse and physician mean "overall SC appropriateness score" and "overall SC barriers score" were analyzed with pairwise comparisons.

Univariate and multivariate logistic regression analyses were used to identify predictors of nurses' and physicians' view of their own role in providing SC. The following covariates were included in the multivariate models: sex, age, religion, religious service attendance, religiosity, spirituality, spiritual care training, duration of practice, and non-medicine affiliation.

All reported p values are two-sided and considered significant when $p<0.05$. Statistical analyses were performed with Stata (version 12.0).

Results

Sample characteristics

Sample characteristics are reported in Table 1. There were statistically significant differences between nurse and physician religious and spiritual characteristics. Nurses were more religious ($p=0.02$), more spiritual ($p<0.01$), and older ($p<0.001$) than physicians. Nurses also more commonly identified themselves as Catholic, whereas physicians were more likely than nurses to identify themselves as Jewish ($p<0.01$).

Clinician perceptions of spiritual care roles

Nearly all nurses and physicians believed that it was the role of professional hospital chaplains (96 and 98 %, respectively) and the patients' spiritual community (96 % for both) to provide SC. Nurses were more likely than physicians to report that SC is the role of non-chaplaincy medical team members, including for doctors (69 vs. 49 %, $p<0.001$), nurses (73 vs. 49 %, $p<0.001$), and social workers (81 vs. 63 %, $p=0.001$) (Fig. 1).

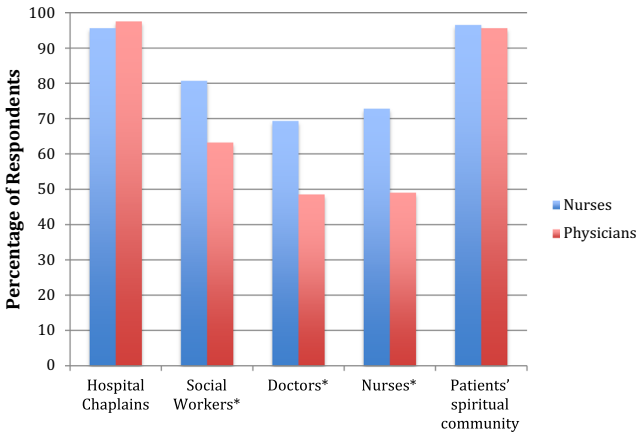

Fig. 1 Nurse and physician perceptions of who has a role in providing spiritual care to advanced cancer patients. *Differences between nurses' and physicians' responses were tested with a X^2 test. Differences in the proportion of nurses and physicians who believed that it was a doctor's or a nurse's role to provide SC were significant with $p<0.001$ and $p=0.001$ for those who thought it was a social worker's role. Differences in the proportion of nurses and physicians who believed that it was a hospital chaplain's role or the role of a patients' spiritual community were not statistically significant, with $p=0.34$ and $p=0.78$, respectively

Role perception and clinician provision of spiritual care

Nurse perception of their role in providing SC was not associated with their perception of SC appropriateness ($p=0.37$), the number of barriers to SC cited ($p=0.55$), and their actual provision of SC, both in terms of overall frequency ($p=0.78$) or in terms of the provision of SC to any of their last three patients seen in clinic ($p=0.63$; Table 2). Among physicians, however, the perception of SC was significantly associated with all of these variables. Of physicians who believed it was their role to provide SC, over 69 % reported providing SC to at least one of their last three patients, compared to 31 % of those who did not believe it was their role.

Role perception predictors

Univariate and multivariate predictors of practitioner's beliefs about their role in providing SC are displayed in Table 3. Among nurses, the only variable that met statistical significance was age, whereby older nurses were more likely to believe they had a role to provide SC. On physician multivariate analysis, intrinsic religiosity [adjusted odds ratio (AOR), 1.44; 95 % CI, 1.13 to 1.99; $p=0.006$], religiosity (AOR 0.31; 95 % CI 0.11 to 0.90; $p=0.03$), and spirituality (AOR, 6.41; 95 % CI, 2.31 to 17.73, $p=0.003$) were predictors of the belief that it is a doctor's role to provide SC. Being moderately to very religious is strongly correlated with being moderately to highly spiritual; so, the inverse association with religiosity may thus be due to multicollinearity. While age was a

Table 2 The relationship of nurse- and physician-perceived role in spiritual care provision to reported appropriateness of, barriers to, and actual provision of spiritual care to advanced cancer patients

	Nurses							Physicians						
	Believe it is a nurse's role to provide SC ($N=83$)				Do not believe it is a nurse's role to provide SC ($N=31$)				Believe it is a doctor's role to provide SC ($N=99$)				Do not believe it is a doctor's role to provide SC ($N=105$)			
	No.	%	Mean	SD	No.	%	Mean	SD	p	No.	%	Mean	SD	No.	%	Mean	SD	p
Overall SC appropriateness score[a]			35.8	0.7			37	1.2	0.37			35.6	0.6			30.4	0.6	<0.001
Overall SC barriers score[b]			21.9	0.7			22.7	1.1	0.55			21.48	0.6			24.5	0.8	0.003
Overall frequency of SC provision									0.78									<0.001
Never/rarely/seldom	24	28.9			11	37.9				37	38.1					69	67.0	
Occasionally/frequently	54	65.1			13	44.8				54	55.7					31	30.1	
Almost always/always	5	6.0			5	17.2				6	6.2					3	2.9	
SC to any of last three patients	50	60.2			16	55.2			0.63	67	69.1			32	31.1			<0.001

SC spiritual care

[a] Overall SC appropriateness score is the sum of responses to seven questions on the appropriateness of RN or MD spiritual care. Responses were scored from 1 (never appropriate) to 6 (always appropriate)

[b] Overall barriers score is the sum of responses to 10 factors that may limit the respondent from providing spiritual care. Responses were scored from 1 (not significant) to 4 (very significant)

Table 3 Univariate and multivariate predictors of nurse and physician perception of role in providing spiritual care to patients with advanced cancer*NE* not estimable

	Univariate analysis			Multivariate analysis		
	Odds ratio	95 % CI	*p*	Odds ratio	95 % CI	*p*
Nurses						
Female			NE			NE
Age	1.07	1.02 to 1.12	0.007	1.08	1.01 to 1.16	0.02
Non-Christian affiliation	1.09	0.32 to 3.68	0.89	1.05	0.23 to 4.78	0.95
Intrinsic religiosity	0.93	0.68 to 1.26	0.62	0.86	0.57 to 1.28	0.45
Religious service attendance	0.85	0.64 to 1.14	0.29	0.83	0.51 to 1.35	0.45
Moderate to very religious	0.55	0.23 to 1.29	0.17	0.69	0.19 to 2.51	0.57
Moderate to very spiritual	1.57	0.59 to 4.19	0.37	2.46	0.64 to 9.44	0.19
Spiritual care training	2.09	0.43 to 10.06	0.46	1.87	0.32 to 11.15	0.49
Duration of practice	1.12	0.86 to 1.45	0.42	0.99	0.67 to 1.45	0.23
Non-Medicine affiliation	1.64	0.58 to 4.60	0.35	2.12	0.62 to 7.27	0.23
Physicians						
Female	1.96	1.11 to 3.44	0.02	0.82	0.37 to 1.82	0.62
Age	0.97	0.94 to 1.00	0.06	1.05	0.95 to 1.16	0.33
Non-Christian affiliation	0.60	0.34 to 1.05	0.08	1.22	0.53 to 2.78	0.64
Intrinsic religiosity	1.43	1.17 to 1.76	0.001	1.44	1.09 to 1.89	0.01
Religious service attendance	1.11	0.90 to 1.37	0.32	1.06	0.74 to 1.52	0.76
Moderate to very religious	1.02	0.57 to 1.83	0.95	0.31	0.11 to 0.90	0.03
Moderate to very spiritual	3.57	1.97 to 6.45	<0.001	6.41	2.31 to 17.73	<0.001
Spiritual care training	1.80	0.80 to 4.07	0.16	1.18	0.40 to 3.48	0.76
Duration of practice	0.81	0.69 to 0.95	0.01	0.58	0.33 to 1.03	0.07
Non-medicine affiliation	0.95	0.54 to 1.66	0.85	0.89	0.43 to 1.84	0.74

predictor on univariate analysis, it did not meet statistical significance on multivariate analysis.

Discussion

This study of the perceptions of nurses and physicians regarding their and other medical providers' roles in providing SC indicates that both groups frequently perceive medical caregivers as having a role, but that this belief was stronger among nurses than physicians. Nurses endorsed this role for both physicians and nurses more frequently, with almost three quarters of the nurses believing that they have a role in providing SC, and more than two thirds indicating that it is the doctor's role. In contrast, only half of the physicians thought it was the role of doctors and of nurses to provide SC to patients with advanced cancer.

Notably, the views of nurses about who has a role in providing SC was not associated with their reported provision of SC to patients recently seen in clinic. Nurses who did not endorse the role of nurses in providing SC did not differ in their actual frequency of SC provision to patients recently seen in clinic (55 %) compared to nurses who believed SC to be part of their professional responsibilities (60 %). Among physicians, on the other hand, role perception was strongly linked to SC provision. Those who believed that SC was within a physician's role were twice as likely to provide SC compared to those who did not believe doctors should be providing SC. This difference in the impact of role perception on actual SC practice between physicians and nurses may reflect a greater acceptance within nursing of their responsibility to offer SC to patients, independent of their own personal role perceptions. This may be consistent with the strong, historical emphasis within nursing training on psychosocial-spiritual and supportive care [23, 24], although the greater preponderance of females in the nurse group may have also played a role.

Regarding factors predicting SC role perceptions among oncology clinicians, physician views of their role was strongly linked to their personal religion/spiritual characteristics. In particular, intrinsic religiosity and spirituality in physicians were found to be strong predictors of role perception regarding SC. This may have been due, in part, to the definition of spiritual that was used in this study. In contrast to other studies that have identified the lack of training in SC as a barrier to its

provision [19, 20], SC training in the present study did not appear to influence providers' perceptions of their role in providing SC to their advanced cancer patients. Nurses' perceptions of their role in providing SC were not largely influenced by their individual characteristics, including religiousness/spirituality. Among nurses, age was the only individual characteristic associated with greater endorsement of the role of nurses as SC providers. This age effect may be related to greater life experience, greater experience caring for patients with advanced cancer, increasing relevance of spiritual matters as individuals grow older [25], or cohort effects. The lack of influence of personal religious/spiritual characteristics on role perceptions among nurses may be due to the greater embedding of a psychosocial-spiritual model of care within nursing training and practice, such that the application of SC is more dependent on professional practice than on personal beliefs.

The finding that physicians frequently do not view themselves or other non-chaplaincy clinicians (e.g., nurses) as having a role in spiritual care provision highlights the need to improve physicians' understandings of their role and that of other non-chaplaincy health care team members' role within interdisciplinary spiritual care [17]. In particular, it is important to improve among physicians their provision of SC, independent of their personal belief systems. This has traditionally involved performing spiritual histories and referring patients to spiritual care professionals (e.g., chaplaincy or local clergy) [17], although more recent approaches to SC emphasize non-religious dimensions [26].

As clinicians are the "first line" caregivers of seriously ill patients, recognition and attention to their spiritual needs are critical to ensuring those needs are met and to supporting a whole-person approach to patient care. This biopsychosocial-spiritual approach to patient care is supported by current national and international palliative care guidelines [9–11]. Furthermore, data indicate that patients themselves view spiritual care as an important component of patient care in the setting of advanced illness [6, 27]. Although physicians and nurses must have many other skills and responsibilities, their close involvement with patients at times of tragedy and impending mortality provides them with a unique opportunity to address and to respond to spiritual concerns [28].

The limitations of this study include the fact that all participants were recruited from a single region in the USA and that the data are based on self-report. The response rate of greater than 60 % is relatively high in a study of physicians and nurses, but non-response bias is possible. The content of SC training received by the survey respondents and the generalizability of these findings to other diseases or to earlier stage cancers are not known. The definition of spirituality as referring to what is divine or sacred may also have influenced the results, though the frequency of endorsement of spirituality is within the range of endorsement among studies lacking a specified definition [22, 29].

In summary, oncology physicians and nurses frequently view themselves as having a role in SC provision to advanced cancer patients. However, only about half of physicians view themselves and other non-chaplaincy medical caregivers as having a role in spiritual care, a perception that is heavily influenced by their own religious/spiritual characteristics. Notably, physician perception of their role was strongly related to reported SC provision to advanced cancer patients recently seen in clinic. In contrast, over two thirds of nurses view themselves and other non-chaplaincy health care providers as having a role in SC provision, and role perception was not dependent on nurses' religious/spiritual characteristics. Furthermore, role perception did not impact nurse-reported SC provision to patients. Given that spiritual care of seriously ill patients, as outlined by national guidelines, requires the involvement of the entire medical team, including doctors and nurses, greater training in non-chaplaincy health caregivers' SC role may be beneficial, at least in improving provision of spiritual care.

Conflict of interest The authors have no conflicts of interests to declare. The authors have had full control of all primary data and agree to allow the journal to review the data, if requested.

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