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ORIGINAL REPORT

Is Failure to Meet Spiritual Needs Associated With Cancer Patients' Perceptions of Quality of Care and Their Satisfaction With Care?

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ABSTRACT

Purpose
Few studies regarding patients' views about spirituality and health care have included patients with cancer who reside in the urban, northeastern United States. Even fewer have investigated the relationship between patients' spiritual needs and perceptions of quality and satisfaction with care.

Patients and Methods
Outpatients (N = 369) completed a questionnaire at the Saint Vincent's Comprehensive Cancer Center in New York, NY. The instrument included the Quality of End-of-Life Care and Satisfaction with Treatment quality-of-care scale and questions about spiritual and religious beliefs and needs.

Results
The participants' mean age was 58 years; 65% were female; 67% were white; 65% were college educated; and 32% had breast cancer. Forty-seven percent were Catholic; 19% were Jewish; 16% were Protestant; and 6% were atheist or agnostic. Sixty-six percent reported that they were spiritual but not religious. Only 29% attended religious services at least once per week. Seventy-three percent reported at least one spiritual need; 58% thought it appropriate for physicians to inquire about their spiritual needs. Eighteen percent reported that their spiritual needs were not being met. Only 6% reported that any staff members had inquired about their spiritual needs (0.9% of inquiries by physicians). Patients who reported that their spiritual needs were not being met gave lower ratings of the quality of care (P = .009) and reported lower satisfaction with care (P = .006).

Conclusion
Most patients had spiritual needs. A slight majority thought it appropriate to be asked about these needs, although fewer thought this compared with reports in other settings. Few had their spiritual needs addressed by the staff. Patients whose spiritual needs were not met reported lower ratings of quality and satisfaction with care.

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INTRODUCTION

Several studies have examined whether patients would like physicians to inquire about their spiritual beliefs and needs, but these studies have largely been conducted in suburban and rural areas, especially in the southeastern United States.[1-4] Patients from those regions appear to welcome inquiries about their spirituality, particularly if they suffer from a serious underlying illness. There are few data about how patients from other regions and from urban environments view those sorts of inquiries.

Attention to the spiritual needs of patients can be considered an important aspect of health care that is not based on any impact on outcome but on a commitment to respecting patients as whole persons.[5] The Joint Commission requires spiritual assessments.[6] The National Quality Forum recently has prominently featured the need to attend to the spiritual needs of cancer patients when assessing the quality of care delivered at all stages of cancer, although the forum document focuses primarily on care at the end of life.[7] Cancer patients appear to rank faith as a highly significant factor in their medical decision making.[8] Spiritual well-being has been demonstrated to correlate with quality of life in patients with cancer.[9,10] One study conducted in the Bronx found at least one unmet spiritual or existential need in half the patients surveyed.[11] That study, however, included a large numbers of Latinos, African Americans, and observant Jews but may not have included less religious populations that are often found in urban settings.

The present study was undertaken in a culturally diverse, urban patient population to determine patient attitudes about spirituality in a cancer care setting and whether their spiritual needs and beliefs were ascertained. This study surveyed these patients about their spiritual beliefs and needs and examined how patients' reports of unmet spiritual needs correlated with their satisfaction and perceptions of quality of care.

PATIENTS AND METHODS

Participants

Patients were prescreened via daily patient appointment lists at the Saint Vincent's Comprehensive Cancer Center in New York City in January and February 2005 and were considered eligible if they were older than 18 years, had not previously been asked to participate, were not patients of the primary study investigators, spoke English or Spanish, and were not coming to the cancer center for the first time. The investigators attempted to locate and approach all eligible patients who showed up for an appointment on each study day. Patients who presented for a follow-up visit with either an attending physician or with a hematology/oncology fellow were asked by one of the investigators to complete the 15-minute, self-administered questionnaire. Verbal consent was obtained at the time participants were offered a questionnaire. Participants were assured of the confidentiality of responses. They were told that the questionnaire was without personal identifiers and would not be shown to their primary physicians and that participation in the study would not affect their medical care. Participants were allowed to complete the questionnaire in the waiting or exam room, either before or after their doctor's visit. The Saint Vincent's Integrated Scientific and Ethical Review Board approved the study.

Instruments

The questionnaire included demographic and clinical information, the Moadal spiritual needs assessment tool,[11] the Quality of End-of-Life Care and Satisfaction with Treatment (QUEST) scale,[12] the Satisfaction with Life Scale,[13] questions about spiritual and religious beliefs and needs, and interest in having these needs addressed by a physician. The question about spiritual needs was simply, "Do you feel your spiritual needs are being met?"

Analysis

Descriptive data are presented as means and percentages. Questionnaires included in the analysis had only rare, sporadic missing data, and missing values were not imputed. The number for each item is therefore reported. The Moadel spiritual needs assessment instrument gives four response options for each item and was coded dichotomously according to the protocol by Moadel et al: "yes" and "yes, but later" responses were coded as the patient reporting a particular spiritual need, and "no" or "not applicable" were coded as the patient not reporting that spiritual need.[11] The QUEST instrument consists of 2 subscales—one for quality of care and one for satisfaction with care. Individual items were rated on a 1 to 5 Likert scale. Overall scores for satisfaction and quality are the sums of responses for individual items in each of these domains. These overall scores for quality and satisfaction were positively skewed; therefore, per previously published protocol, data were rank-transformed to allow parametric analysis.[12] Tests of univariate association with dependent variables were conducted using correlations, t tests, and χ^2 tests as appropriate. Logistic techniques were used for multivariate analysis of the dichotomous dependent variables that reflected patient perceptions of the appropriateness of physician inquiries regarding their religious and spiritual needs. Multivariate linear regression models were estimated for the two QUEST subscales. All analyses were conducted using the SPSS software package (SPSS Inc, Chicago, IL).

RESULTS

Of the 1,596 patients prescreened for eligibility on appointment lists, 641 were ineligible: 171 because they had been previously approached at an earlier visit, 143 because they were patients of one of the investigators, 99 because of language, and 228 because they were new patients or had cancelled their appointments. Of the 955 eligible patients, 492 (52%) either did not show up or could not be approached before they had left the facility for the day; 81 (8.5%) were approached and refused to participate; and 382 (40%) completed questionnaires. An additional 13 were excluded from analysis because of incomplete questionnaires, which yielded a sample size of 369. Participants did not differ from nonparticipants in age (61.6 v 62.0 years; $P = .79$).

Characteristics of the 369 participants are described in Table 1. The mean age was 57.5 years; 65% were women; 65% were college educated; and 67% were privately insured. One third were nonwhite minorities, and one half were married. The sample was balanced between breast cancer, other solid tumors, and hematologic malignancies. Few had had nonmalignant hematologic conditions. Hypertension was the most frequently reported comorbid condition.

Beliefs, Practices, and Attitudes

Although 94% reported affiliation with a religious denomination (47% Catholic), only 29% reported attending religious services at least once per week, and 66% considered themselves spiritual but not religious. Table 2 lists the results of questions about spiritual needs and the health care setting. Fifty-two percent thought it appropriate for physicians to inquire about their religious beliefs, and 58% thought it appropriate for physicians to inquire about their spiritual needs. Nine percent reported that the staff had inquired about their spiritual or religious beliefs (0.6% by a physician), and 6% reported inquiries about their spiritual needs (0.9% by a physician). Eighteen percent reported that their spiritual needs were not being met. The validity of this single-item measure of spiritual need is supported by the fact that those who reported that their spiritual needs were not being met reported an average of 2.9 times more spiritual needs on the Moadel scale than did patients who reported that their spiritual needs were being met ($P < .001$).

Table 1. Patient Characteristics

Characteristic	Patient Data		
	%	No. of Patients With Characteristic	Total No. of Patients
Mean age, years		57.5	
Female	65	240	368
White	67	246	36
Married	48	177	367
College educated	65	233	360
Type of cancer			
Breast	32%	114	369
Solid tumor (nonbreast)	31%	100	369
Leukemia/lymphoma	31%	124	369
Benign hematologic disorder	6%	21	369
Privately insured	67%	246	365
Religious background			
Catholic	47%	164	349
Jewish	19%	65	349
Protestant	16%	59	349
Atheist/agnostic	6%	23	349
Spiritual but not religious	66%	230	349
Attendance at religious services at least once a week	29%	103	352

Table 2. Patient Views About Spirituality and Religion in the Health Care Setting

Item	Patient Response: No. of Patients Responding Yes	Total No. of Patients Responding	%
Appropriate for doctor to inquire about religious beliefs?	177	341	52
Appropriate for doctor to inquire about spiritual needs?	196	340	58
Has staff inquired about spiritual or religious beliefs?	33	350	9
Has physician inquired about spiritual or religious beliefs?	2	350	0.6
Has staff inquired about spiritual needs?	21	338	6
Physician inquired about spiritual needs?	3	338	0.9
Are your spiritual needs being met?	250	304	82

Table 3. Spiritual and Existential Needs Cited by Patients

Individual Spiritual Needs	Patient Response: No. of Patients Reporting Each Spiritual Need	Total No. of Patients Responding	%
Meet similar patients	147	337	44
Relaxation	185	332	56
Help with sadness	121	332	36
Help to share feelings	102	334	31
Spiritual resources	90	328	27
Help with family worries	100	333	33
Finding meaning in life	91	331	27
Finding hope	93	329	28
Overcoming fears	124	335	37
Talk about meaning of life	67	330	20
Talk about dying and death	66	326	20
Finding peace of mind	102	334	30

NOTE. Instrument developed by Moadel et al.[11]

In a multivariate logistic regression model that controlled for age and insurance, weekly attendance at religious services (odds ratio [OR], 2.86; 95% CI, 1.45 to 5.62; $P = .002$) was associated with the belief that it would be acceptable for physicians to inquire about their religious beliefs. Patients who described themselves as spiritual but not religious were less likely to think it appropriate for a physician to inquire about their religious beliefs (OR, 0.48; CI, 0.28 to 0.84; $P = .001$).

In another multivariate model, graduate or professional education (OR, 2.0; 95% CI, 1.11 to 3.57; $P = .02$), private insurance (OR, 2.96; 95% CI, 1.32 to 6.62; $P = .008$), and weekly attendance of religious services (OR, 2.25; 95% CI, 1.24 to 4.10; $P = .008$) were associated with the view that it would be acceptable for physicians to inquire about patients' spiritual needs. Patients who described themselves as spiritual but not religious were no more or less likely to find it appropriate for physicians to inquire about their spiritual needs.

Specific Spiritual Needs

Specific spiritual needs reported by patients on the Moadel questionnaire are listed in Table 3. The results ranged from 56% of patients expressing a need for relaxation to 20% expressing a need to talk about death. Overall, 73% expressed at least one spiritual need. In open-ended questioning, the most common spiritual resource requested was formal religious assistance, but this was mentioned by only 35% of the respondents who described a specific resource they felt would address their needs.

Association Between Spiritual Needs and Patient Ratings of Quality

We explored the association between unmet spiritual needs and patient ratings of the quality of the care with the QUEST instrument. On univariate analysis, a report that one's spiritual needs were not being met was associated with lower ratings of the quality of care ($P = .005$). The association between the belief that one's spiritual needs were not being met and lower quality-of-care ratings was present as a trend for all items on the QUEST quality subscale and was individually significant for five of the eight individual items: doctor was hard to reach ($P = .02$); treated me more like a disease than a person ($P = .01$); showed concern ($P = .001$); responded quickly ($P = .03$); and spent enough time with me ($P = .006$).

In exploratory univariate analyses, race/ethnicity (lowest for non-Hispanic whites; $P = .06$), education (lowest for those with a postgraduate education; $P < .001$), religion (lowest for non-Catholics; $P = .004$), the belief that it is not appropriate for physicians to inquire about religious beliefs ($P = .05$), and diagnosis (lowest for leukemia/lymphoma; $P = .004$) also all were associated with lower ratings of quality of care. Age, number of children, being spiritual but not religious, and the frequency of attendance at religious services were not associated with patient ratings of the quality of care.

In a multivariate model (Table 4), patients who reported that their spiritual needs were not being met rated the quality of their medical care lower ($P = .009$) than did those patients who reported their needs were being met. More education was also associated with lower ratings of quality ($P = .002$). Conversely, Catholic patients ($P = .05$) and those with higher life satisfaction scores ($P = .03$) gave higher ratings of the quality of their medical care. Although patients with hematologic malignancies and those who thought it inappropriate to inquire about their religious beliefs reported lower quality scores in the univariate analysis, diagnosis and views

Table 4. Multivariate Linear Regression Model of Factors Associated With the QUEST Quality of Care Subscale (N = 295)

Variable	β	P
Spiritual needs met? 1 = yes, 2 = no	−.154	.009*
Education level 1 = no college, 2 = college, 3 = graduate/professional	−.180	.002*
Diagnosis 1 = leukemia/lymphoma, 2 = other	.077	.18
Appropriate to inquire about beliefs? 1 = yes, 2 = no	−.046	.35
Religion 1 = Catholic, 2 = other	−.115	.05
Life satisfaction score	.129	.03*

Abbreviation: QUEST, Quality of End-of-Life Care and Satisfaction with Treatment.
*Statistically significant.

about the appropriateness of inquiries about religious beliefs were not independently associated with patient ratings of quality once we controlled for these other variables.

Satisfaction

The QUEST instrument also has a subscale for satisfaction with care. In univariate analyses, patient belief that one's spiritual needs were not being met was associated with lower satisfaction with medical care ($P = .001$). Having unmet spiritual needs was significantly associated with lower scores for each item on the QUEST satisfaction subscale except for common courtesy (bedside manner, $P = .003$; way of talking, $P = .02$; clinical skills, $P = .001$; concern, $P = .002$; and overall satisfaction, $P = .001$).

In exploratory univariate analyses, higher educational levels ($P = .03$), being unmarried or unpartnered ($P = .046$), believing that it is inappropriate for physicians to inquire about patients' religious beliefs ($P = .008$), and having lower life satisfaction ($P = .04$), all were associated with lower satisfaction with medical care. Diagnosis and religious affiliation were not associated with satisfaction with care in univariate analysis.

In a multivariate model (Table 5), patients whose spiritual needs had not been met ($P = .006$) and those with higher education ($P = .01$) were less satisfied with care, whereas the trends for married or partnered patients ($P = .07$) and for those with higher life satisfaction ($P = .07$) were toward more satisfaction with care.

DISCUSSION

This study shows that most ambulatory patients in a northeastern, urban cancer center have spiritual and existential needs, that professional staff (especially physicians) seldom inquire about patients' spiritual needs or religious beliefs, that a slight majority of patients would welcome such an inquiry from their physicians, and that the presence of unmet spiritual needs correlates with lower satisfaction with care and with a perception of lower quality of care. Although 94% reported an affiliation with a religious denomination, only 29% reported attending religious services at least once per week, and 66% considered themselves spiritual but not religious. Nonetheless, 73% of these patients reported at least one spiritual need; 52% felt that it was appropriate for their physicians to inquire about their religious beliefs, and 58% felt that it was appropriate for physicians to inquire about their spiritual needs. Although most patients felt that, overall, their spiritual needs were being met (presumably from sources outside the cancer center), the minority with unmet spiritual needs (18%) rated the quality of their medical care and their satisfaction with care lower than those who felt that their spiritual needs were being met.

Table 5. Multivariate Linear Regression Model of Factors Associated With the QUEST Satisfaction With Care Subscale (N = 329)

Variable	β	P
Spiritual needs met? (1 = yes, 2 = no)	−.162	.006*
Inquiry about religious beliefs appropriate? (1 = yes, 2 = no)	−.095	.10
Education level (1 = no college, 2 = college, 3 = graduate/professional)	−.146	.01*
Marital status (1 = single, 2 = other)	.105	.07
Life satisfaction score	.107	.07

Abbreviation: Quality of End-of-Life Care and Satisfaction with Treatment.
*Statistically significant.

Our finding that a slight majority of outpatients in a secular, urban environment would welcome inquiries about spiritual needs and religious beliefs is consistent with prior studies from rural and southern states[2,13-15] and with one study from a largely minority, and more overtly religious, urban setting.[11] Studies of hospitalized patients have also shown that most patients want physicians to consider their spiritual needs in the overall plan of care.[4] The fact that a substantial minority of our patients would not welcome such inquiries suggests a note of caution, however, particularly in locales where attendance at religious services is low. Not surprisingly, patients who described themselves as spiritual but not religious were somewhat less likely to think it appropriate for a physician to inquire about their religious beliefs, yet these spiritual but not religious patients were not less likely to think it appropriate for physicians to inquire about their spiritual needs. Nonetheless, physicians could not know that a patient considered himself or herself religious, spiritual but not religious, or secular without first inquiring. Together, these findings suggest that physicians who work in settings similar to ours might serve patients best first by inquiring carefully and respectfully about whether the patient would like them to attend to their spiritual needs, second by making inquiries about the patient's spiritual needs, and third by following the patient's lead before inquiring about religious beliefs.

A previous study that used a single-item measure on a discharge questionnaire has shown a correlation between overall patient satisfaction and the concern shown by hospital staff for patient emotional and spiritual needs.[16] Our study corroborates and clarifies this finding by specifically focusing on spiritual needs as a distinct measure, by partially validating that measure, and by using a rigorously validated, multi-item measure of patient ratings of quality and satisfaction with care. We do not wish to imply that satisfaction should be the sole justification for attending to the spiritual needs of patients. The spiritual needs of patients have intrinsic significance in caring for them as whole persons.[5] Nonetheless, the strong association with satisfaction is important.

Patients with cancer may have a greater interest in the spiritual dimension of their struggles than other patients.[17] In one study, newly diagnosed patients with lung cancer ranked their belief in God as the second most important factor in their treatment decision, just after the recommendation of the oncologist.[8] Spiritual well-being in cancer patients has been shown to correlate with quality of life.[9,18] In the Coping With Cancer Study, 88% of a study population of patients with advanced cancer and less than 1 year of life expectancy considered religion to be somewhat important to them, and 72% reported that their spiritual needs were supported minimally or not at all by the medical system.[19] As our patient population consisted of patients with early-stage and advanced cancer, our study suggests that spiritual support is relevant to patients with all stages of cancer and that efforts by physicians and nurses to address patient needs in this realm might contribute to improved patient perceptions of quality of care and improved satisfaction with care.

Limitations

As this was a convenience sample, potential selection bias is a limitation. This is a reasonably large cohort for this type of study; however, participants did not seem to differ systematically from

nonparticipants, and more than 80% of the patients who were approached agreed to participate. Some might worry that our finding of unmet spiritual needs merely captures overall psychological distress. However, our single-item measure had demonstrable construct validity in its high correlation with the Moadel scale of specific spiritual needs, and the association between dissatisfaction with care and unmet spiritual needs persisted in models that controlled for general life satisfaction. The study may have limited generalizability because it involved a single institution, but the purpose of the study was, in part, to replicate findings from other settings. Importantly, because this is a cross-sectional study, these results do not prove that patient perceptions of quality and satisfaction with care would be improved if physicians were to address their spiritual needs.

Implications

The intriguing and novel association between spiritual needs and satisfaction with care that we report suggests that further investigation is warranted. This study needs to be replicated in other settings. It will also be important to explore how best to navigate the fact that dissatisfaction with care is associated with unmet spiritual needs, yet a substantial minority of patients would not welcome inquiries about their spiritual needs. How should patients' spiritual needs be addressed in the health care setting, and who should do this? The relationship among spirituality, satisfaction, and other health care outcomes deserves further study. Finally, it will be important to test whether any form of spiritual intervention could improve patient satisfaction and perception of the quality of care.

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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

AUTHOR CONTRIBUTIONS

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