

# Physicians' Religiosity and End-of-Life Care Attitudes and Behaviors

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## Abstract

**Background:** Physicians play the central role in decisions to initiate, withhold and withdraw life-sustaining medical care. Prior studies show that physicians' religiosity is related to end-of-life care attitudes and practices, which — if not in concert with the patient or family — may be a source of conflict. We surveyed physicians of one religion to describe the relationship between religiosity and end-of-life care.

**Methods:** Cross-sectional survey of 443 Jewish physicians at four Israeli hospitals, which characterized religiosity and asked about attitudes and communication with patients about end-of-life issues and care practices.

**Results:** Very religious physicians, compared to moderately religious and secular physicians, were much less likely to believe that life-sustaining treatment should be withdrawn (11% vs. 36% v. 51%,  $p<0.001$ ), to approve of prescribing needed pain medication if it will hasten death (69% vs. 80% vs. 85%,  $p<0.01$ ), or to agree with euthanasia (5% vs. 42% vs. 70%,  $p<0.001$ ). Religiosity was not related to withholding most life-sustaining treatments, but even after adjustment for physician and practice characteristics, very religious physicians were much less likely to "ever stop life-sustaining treatment provided to a suffering terminally ill patient" ( $p<0.0003$ ). Religiosity was unrelated to physician-patient communication or to desire for support concerning end-of-life care. Desire for support was universally high.

**Conclusions:** Physicians' religiosity can have a major effect on the way their patients die, including whether patients receive adequate analgesia near death. Patients may need to query physicians' religious perspectives to ensure that they are consistent with patients' end-of-life care preferences. Evaluation of religiosity-related clinical behavior in other cultures is needed.

**Key Words:** End of life decisions, physician behavior, religion, terminal care.

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## Introduction

DECISIONS ABOUT THE END OF LIFE, such as whether to pursue aggressive care or withhold or withdraw life-sustaining treatments, require consideration of clinical factors in the context of a patient's values. These decisions are complex, varying substantially across cultures (1–3). Physicians play the central role in decisions to initiate, withhold and withdraw care. Beyond clinical circumstances, physicians' decisions also are influenced by cultural, personal and practice factors that affect physicians' per-

ceptions of the proper course for care. Such influences, if not in concert with those of the patient and the patient's family, can be a source of conflict regarding end-of-life care (4, 5).

The one physician characteristic that is most consistently related to end-of-life care attitudes and behaviors is level of religious commitment. Other physician demographic factors have been shown to be related to end-of-life care in some studies, but not in others. Physician gender, for example, is related to communication with patients (6), but not to withholding and withdrawing treatments in neonates (1), or accepting (7, 8) and performing (9) euthanasia. Gender is also not related to attitudes concerning appropriate end-of-life care among medical students (10). Similarly, physician age and professional experience have been shown to be related to terminal care practices and attitudes in some studies (1, 7, 11), but not in others (8, 9). Furthermore, several studies found no relationship when comparing end-of-life behaviors and attitudes with provider practice

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characteristics, such as practice type (1), specialty (7, 9, 12), size (9) and geographic region (8, 9). Contrary to these presumably weak influences, religious influence is consistently strongly related to physician-reported end-of-life attitudes and behaviors (1, 7–12). However, studies of the influences of physician end-of-life attitudes and behaviors usually include religion only as a covariate. Health researchers have not focused on understanding the role of physicians' religious beliefs on end-of-life attitudes and care practices. Specifically, how does religion affect a physicians' communication with patients about end-of-life care? And does a physician's religiosity influence use of analgesics, withholding and withdrawing behaviors, and views toward euthanasia?

Furthermore, most studies of physicians include a variety of religions. However, since there is considerable variation in the relationship between type of religion and end-of-life attitudes and behaviors (7–9), we endeavored to understand the relationship of religiosity and end-of-life care attitudes and behaviors in a sample of physicians adhering to only one religion. We surveyed Israeli Jewish physicians whose religiosity covered a wide range. Focusing on Israel, where a paternalistic bent means that physician perspectives may be even more influential in care decisions than in other Western countries (13), we attempted to understand the depth and breadth of the effect of religiosity on end-of-life communication, attitudes and behaviors.

## Methods

We conducted a cross-sectional survey of physicians in four hospitals in Israel. Attending physicians and residents at these institutions were eligible for the survey if they practiced in the fields of internal medicine, family medicine, geriatrics, oncology, critical care or surgery. Data were collected in two waves: at two hospitals physicians completed surveys from June to November 1997 and at the other institutions December 1998 and March 1999. Of the 615 physicians approached for participation in the study, 443 completed the survey, for an overall response rate of 72%.

## Survey Instrument Design

The survey instrument was constructed on the basis of the literature, clinical experience and an earlier exploratory investigation conducted at one of the hospitals (14). The self-administered

survey instrument, which was completed in Hebrew, asked about: treatment intentions using hypothetical scenarios, communication concerning end-of-life care, attitudes about end-of-life treatments, end-of-life care practices, factors influencing a physician's end-of-life decisions, and the physician's demographics, professional characteristics, religiosity and type of practice.

Religiosity was measured using a five-item scale, which is a short version of the Jewish Religiosity Scale (15). The items asked about strength of religious belief, participation in religious ceremonies or prayers, self-perceived religiosity, religiosity of the home in which the respondent was raised, and whether the respondent adhered to Jewish dietary laws. Factor analysis revealed that these items form a single construct with an internal consistency of 0.88. The items are summed into an index with a theoretical range of 5–25, with a higher score indicating greater religiosity. Other physician characteristics queried in the survey included: age, gender, marital status, number of children, place of birth, year of immigration to Israel, years in practice, specialty, whether the physician was an attending or a trainee, and whether the physician had a managerial role and held an academic title.

Respondents were asked about their treatment intentions regarding four treatment modalities: hydration, tube feeding, mechanical ventilation and cardiopulmonary resuscitation (CPR). The scenario presented the following patient: "A cancer patient of about 80 years old presents to you, without a family, with severe metastatic cancer with a prognosis for only temporary improvement." Physicians were asked:

- If he cannot eat, would you provide fluids?
- If he cannot eat, would you connect him to artificial feeding (nasogastric tube or gastrostomy)?
- If he cannot breathe, would you connect him to a breathing machine?
- If his heart stops beating, would you perform CPR?

Response options were presented using a 5-point scale ranging from 1 ("certainly would not") to 5 ("certainly would"). Physicians then were asked an analogous question about themselves: "If you had severe metastatic cancer and treatment could afford only temporary improvement...." The same questions and response options were presented for the respondent to consider personal treatment desires.

Attitudes and behaviors toward end-of-life care were explored by asking about withdrawing care; provision of analgesics, even if it

would shorten life; and active euthanasia. A dichotomous response option was provided for these questions. Physicians also were asked about their level of support for active euthanasia, based on the synopsis of a published case (16), using a 5-point scale ranging from “complete support” to “firm opposition.”

End-of-life care practices and practice intentions were evaluated with items asking whether the physician initiates withdrawal of life-sustaining treatment; whether the physician would comply with the request of a competent, continuity patient with a terminal condition who requests euthanasia; and whether he or she would accept the directives in a living will.

Attitudes concerning communication about end-of-life care were probed with items asking whether physicians should: inform a patient about a metastatic cancer diagnosis; inform a patient approaching death about prognosis; and discuss life-sustaining treatment preferences in advance of need. Two items elicited perceptions about whether patients close to death desire information about their condition and whether they desire to participate in treatment decisions. Three items asked about communication behaviors, specifically whether the physician discloses prognosis to a patient who is close to death and whether the physician consults with patients about treatment preferences.

Physicians were asked about the factors that influence whether they initiate life-sustaining treatment for a patient with an irreversible terminal condition. These items queried the influences of physicians' duties, laws and policies, patients' and families' wishes, and religious beliefs using a 1 (not at all) to 5 (a great extent) scale. Lastly, physicians were asked about whether they perceived a need for support and guidance concerning the treatment of dying patients.

## Analysis

The religiosity scale demonstrated a range of 5–24. It was generally normal in distribution but had a broad group at the lower extreme. Non-religious physicians were defined as those with scores below 6, moderately religious physicians were those with scores between 6 and 15, and very religious physicians had scores above 15. This religiosity variable was used to perform bivariate analyses of attitudes and behaviors concerning end-of-life care. In addition, physician demographic and practice characteristics were evaluated with respect to religiosity. Chi square tests and one-way analysis of variance

were used, when appropriate, to compare each variable across the three religiosity categories. T-tests and chi square tests and Fisher exact tests, as appropriate, were used to perform comparisons among the three pairs of groups.

To evaluate the independent contribution of religiosity to the behavior most likely to have a clinical effect on patients, we evaluated physicians' reported frequency of withdrawing life-sustaining treatment from a patient, using linear regression. In addition to religiosity, which was included as a continuous variable, we incorporated independent physician variables that were significantly associated with religiosity in this study and physician characteristics associated in the medical literature with end-of-life care behaviors including: physician's age, gender, place of birth (Israel versus elsewhere), whether an immigrant since 1989, medical specialty (internal medicine vs. surgery) and professional status (attending vs. generalist vs. a physician-in-training).

## Results

The sample of 443 physicians had a mean age of 41 years, 88% were married and they had, on average, two children. Seventy percent were men, nearly half were born in Eastern Europe and 36% in Israel. About two-thirds of these physicians practiced or were training in internal medicine or a medical specialty (Table 1).

The mean score on the religiosity scale, which ranges from 5–25, was 9.2 (median 8.0 and standard deviation 4.2). Thirty-two percent (141) of physicians were categorized as “secular,” 59% (262) as “moderately religious” and 9% (40) as “very religious.” This corresponded well with the single item that requested self-classification of religiosity: 70% “completely non-religious,” 21% “traditional,” 7% “religious” and 2% “very religious.” Religious physicians, compared to less religious physicians, were somewhat older, had more children, and were less likely to have been born in Eastern Europe or have immigrated in the past decade. Consistent with being older, they had spent more years in medical practice and were less likely to be in training or general practitioners (Table 1).

## End-of-Life Attitudes and Practices

Physicians who were more religious described attitudes and practices concerning end-of-life care that were protective of length of life. There was consistency between attitudes and with respect to withdrawing care and be-

**TABLE 1**  
*Socio-demographic and Professional Characteristics of Three Groups of Israeli Physicians: Very Religious, Moderately Religious and Not Religious*

	<b>Not Religious</b> (n=141)	<b>Moderately Religious</b> (n=262)	<b>Very Religious</b> (n=40)	<b>Total Sample</b> (n=443)
<b>Socio-demographic characteristics</b>				
Age, mean (SD)	<b>40.9 (8.1)*</b>	<b>40.7 (8.4)†</b>	<b>45.3 (10.8)*†</b>	41.2 (8.7)
Married or live with partner (%)	87.2	87.8	94.9	88.3
Number of children, mean (SD)	<b>2.0 (1.3)*</b>	<b>1.9 (1.1)†</b>	<b>3.6 (1.9)*†</b>	2.1 (1.4)
Male (%)	70.9	69.3	75.0	70.3
Place of birth (%)				
Israel	<b>38.6*</b>	<b>34.4†</b>	<b>41.0*†</b>	36.4
America and West Europe	<b>12.1</b>	<b>8.4</b>	<b>28.2</b>	11.0
East Europe	<b>48.6</b>	<b>54.0</b>	<b>28.2</b>	49.9
Asia and North Africa	<b>0.7</b>	<b>3.2</b>	<b>2.6</b>	2.3
Immigrated since 1989 (%)	<b>38.3*</b>	<b>42.0†</b>	<b>17.5*†</b>	38.6
<b>Professional characteristics</b>				
Years in practice, mean (SD)	<b>14.1 (8.2)*</b>	<b>14.2 (9.0)†</b>	<b>18.3 (11.3)*†</b>	14.6 (9.1)
Academic rank (%)	43.7	38.4	48.6	41.1
Specialty (%)				
General medicine	<b>59.5*</b>	<b>68.2†</b>	<b>86.8*†</b>	32.8
Surgery	<b>40.5</b>	<b>31.8</b>	<b>13.2</b>	67.2
Professional status*				
General practitioner or resident	<b>44.0</b>	<b>54.0†</b>	<b>35.0†</b>	49.0
Specialist	<b>56.0</b>	<b>46.0</b>	<b>65.0</b>	51.0
Managerial status (%)	18.4	13.4	25.6	16.1

SD = standard deviation

Values in **BOLD** are significantly different across the three groups at  $p < 0.05$ .

\* $p < 0.05$  for comparison between Not Religious and Very Religious groups.

† $p < 0.05$  for comparison between Moderately Religious and Very Religious groups.

tween attitudes and behavioral intervention with respect to euthanasia. However, with regard to withholding care, the relationship between religion, attitude and behavioral intent was more complex. Concerning provision of life-sustaining treatment to an older, terminally ill man with cancer, there was no statistically significant difference by religiosity concerning hydration, tube feeding and mechanical ventilation. However, very religious physicians were less likely to withhold CPR ( $p < 0.01$ ). When considering the same treatment modalities for themselves, if they were to have metastatic cancer, very religious physicians' responses were consistent with the care intended for the terminally ill 80-year-old man. However, less religious physicians were less likely to desire for themselves the treatment modalities that they would provide to the hypothetical 80-year-old terminally ill man. This divergence between personal attitude and behavioral intention resulted in very religious physicians desiring for themselves more life-sustaining treatment than did their less religious counterparts (all

$p$ 's  $< 0.05$ ), whereas care intentions for the 80 year old man, with the exception of CPR, reflected no difference by religiosity (Table 2).

With regard to withdrawing treatment, very religious physicians were less likely than moderately religious or secular physicians to agree that there are circumstances in which a life-sustaining treatment should be withdrawn (11% vs. 36% vs. 51%, respectively,  $p < 0.001$ ). Consistent with this view, very religious physicians were much less likely to report that they had withdrawn life-sustaining treatment from a patient ( $p < 0.01$ ). While non-religious physicians were more likely than moderately religious physicians to agree that there are circumstances in which life-sustaining care should be stopped, there was no significant difference between these groups in reported behavior. Concerning euthanasia, very religious physicians were less likely to approve, in principle, the use of a lethal injection to end a terminal patient's life, to approve of the euthanasia act in the "Debbie" case, or to be willing to perform euthanasia if requested by a patient (all  $p < 0.01$ ) (Table 2).

**TABLE 2**  
*Relationship of Religiosity and End-of-Life Care Attitudes and Behavior Among Israeli Physicians*

	<b>Not Religious (n=141)</b>	<b>Moderately Religious (n=262)</b>	<b>Very Religious (n=40)</b>	<b>Total Sample (n=443)</b>
<b>Attitudes</b>				
Would you prefer the following life-sustaining treatment if you were terminally ill with metastatic cancer? <sup>a</sup> Mean (SD)				
Hydration	<b>3.63 (1.7)*</b>	<b>3.82 (1.6)</b>	<b>4.28 (1.1)*</b>	3.80 (1.6)
Tube feeding	<b>2.51 (1.6)*</b>	<b>2.62 (1.6)†</b>	<b>3.43 (1.5)*†</b>	2.66 (1.6)
Mechanical ventilation	<b>1.52 (1.1)*</b>	<b>1.63 (1.2)†</b>	<b>2.31 (1.6)*†</b>	1.66 (1.2)
Cardiopulmonary resuscitation	<b>1.32 (0.9)*</b>	<b>1.38 (1.0)†</b>	<b>2.15 (1.6)*†</b>	1.43 (1.1)
Are there situations in which the use of a life-sustaining treatment (such as mechanical ventilation and dialysis) should be stopped after it was begun? <sup>b</sup> (%)				
	<b>50.7*‡</b>	<b>36.3†‡</b>	<b>10.8*†</b>	38.8
Do you approve of prescribing for a terminally ill patient a pain medication, even if it will shorten his life? <sup>b</sup> (%)				
	<b>84.7*</b>	<b>80.2</b>	<b>69.4*</b>	80.7
In principle, should a physician perform euthanasia if the patient requests it? <sup>b</sup> (%)				
	<b>70.3*‡</b>	<b>42.2†‡</b>	<b>4.5*†</b>	44.0
Do you approve of the physician performing euthanasia in the Debbie case? <sup>a</sup> Mean (SD)				
	<b>3.00 (1.5)*</b>	<b>2.72 (1.4)†</b>	<b>1.59 (1.1)*†</b>	2.71 (1.4)
<b>Behavior and Behavioral Intention</b>				
Would you order the following life-sustaining treatment for an 80-year-old terminally ill cancer patient? <sup>a</sup> Mean (SD)				
Hydration	4.55 (0.9)	4.65 (0.8)	4.57 (0.8)	4.61 (0.9)
Tube feeding	3.38 (1.6)	3.52 (1.5)	3.37 (1.5)	3.46 (1.5)
Mechanical ventilation	2.17 (1.4)	2.29 (1.5)	2.35 (1.6)	2.26 (1.5)
Cardiopulmonary resuscitation	<b>1.53 (1.1)*</b>	<b>1.73 (1.2)†</b>	<b>2.25 (1.6)*†</b>	1.71 (1.2)
Do you ever stop life-sustaining treatment provided to a suffering terminally ill patient? <sup>a</sup> Mean (SD)				
	<b>2.59 (1.2)*</b>	<b>2.41 (1.1)†</b>	<b>1.95 (1.0)*†</b>	2.43 (1.1)
If a patient you know well who has a terminal condition and is cognitively functioning requests that you perform euthanasia, would you comply with his request? <sup>b</sup> (%)				
	<b>35.3*‡</b>	<b>22.2†‡</b>	<b>0.0*†</b>	22.0
Will you comply with a patient's living will that requests withholding of life-sustaining treatment? (%)				
Yes, always	<b>62.3*‡</b>	<b>49.8†‡</b>	<b>36.1*†</b>	52.7
Yes, with reservation	<b>21.8</b>	<b>26.3</b>	<b>50.0</b>	26.8
No	<b>15.9</b>	<b>23.9</b>	<b>13.9</b>	20.5

SD = standard deviation

Values in **BOLD** are significantly different across the three groups at  $p < 0.05$ .

\* $p < 0.05$  for comparison between Not Religious and Very Religious groups.

† $p < 0.05$  for comparison between Moderately Religious and Very Religious groups.

‡ $p < 0.05$  for comparison between Not Religious and Moderately Religious groups.

<sup>a</sup> Responses on 5-point scale ranging from 1 (certainly would not) to 5 (certainly would).

<sup>b</sup> Response of "yes" to dichotomous choice.

Concerning acceptance of a living will, very religious physicians were more likely to accept the preferences "with reservation" whereas less religious physicians reported that they would

permit such documents to guide care without restriction (Table 2).

The multivariate linear regression model predicting whether a physician withdraws care from patients showed that less religiosity ( $p=0.0003$ ) and practicing internal medicine rather than surgery ( $p<0.0001$ ) were independently associated with withdrawing life-sustaining care. Physician age, gender, birth country, immigration status and professional status were unrelated to withdrawing care.

Little variation by religiosity was detected with regard to communication about end-of-life care. Very religious physicians were slightly less likely than moderately religious physicians to agree that physicians should prospectively discuss end-of-life issues with patients ( $p<0.05$ ). However, there was no significant difference in views concerning whether a physician must in-

form a patient about a terminal cancer diagnosis, whether a physician must disclose to a patient that he or she is close to death, or whether patients want precise information or to participate in decisions about the end of life. The similar attitudes translated into similar reported behaviors with regard to informing patients that they are close to death and discussing preferences and treatments with patients (Table 3).

### Factors Influencing End-of-Life Treatment Decisions

More religious physicians were more likely to report that their behavior in treating a terminally ill patient was influenced by their personal religious beliefs ( $p<0.001$ ), the patient's religious beliefs ( $p<0.05$ ), and the belief that the physician has a duty to prolong life ( $p<0.001$ ).

**TABLE 3**  
*Relationship of Religiosity to End-of-Life Communication Among Israeli Physicians*

	<b>Not Religious</b> (n=141)	<b>Moderately Religious</b> (n=262)	<b>Very Religious</b> (n=40)	<b>Total Sample</b> (n=443)
<b>Communication Attitudes</b>				
The physician must talk with the patient about his wishes regarding life-sustaining care so these wishes can be considered when needed. <sup>a</sup>				
Mean (SD)	<b>3.74 (1.2)</b>	<b>3.88 (1.1)<sup>†</sup></b>	<b>3.45 (1.3)<sup>†</sup></b>	3.79 (1.1)
If a patient has metastatic cancer with no chance of cure, should the physician tell the patient? <sup>b</sup> (%)	70.7	71.5	76.3	71.7
A patient should be informed of their prognosis as they approach death. <sup>a</sup> Mean (SD)	3.09 (0.9)	3.06 (1.2)	3.31 (1.1)	3.09 (1.1)
Patients who are close to death desire precise information about their condition. <sup>a</sup> Mean (SD)	3.03 (0.9)	2.99 (0.9)	3.26 (0.8)	3.03 (0.9)
Patients desire to participate in treatment decisions regarding limiting treatment. <sup>a</sup> Mean (SD)	3.19 (0.9)	3.13 (0.9)	3.45 (0.7)	3.18 (0.9)
<b>Communication Behaviors</b>				
Do you tend to tell your patient about his prognosis, even if he is close to death? <sup>a</sup>				
Mean (SD)	2.62 (1.1)	2.65 (1.2)	2.60 (1.2)	2.64 (1.2)
Do you tend to find out what the patient wants regarding prolonging his life? <sup>a</sup> Mean (SD)	3.19 (1.3)	3.22 (1.3)	3.25 (1.3)	3.21 (1.3)
Do you consult with patients with terminal diagnoses about their treatment? <sup>a</sup> Mean (SD)	3.26 (1.3)	3.33 (1.6)	3.41 (1.1)	3.32 (1.2)

SD = standard deviation

Values in **BOLD** are significantly different across the three groups at  $p<0.05$ .

<sup>†</sup> $p<0.05$  for comparison between Moderately Religious and Very Religious groups.

<sup>a</sup> Responses on 5-point scale with a higher score indicating more agreement with the statement.

<sup>b</sup> Response of "yes" to dichotomous choice.

But, more religious physicians were less influenced by the belief that a doctor must prevent suffering. Very religious physicians were less likely to report being influenced by the law or hospital ward policies. No significant differences were found among the three groups concerning regard for patients' and families' wishes in making end-of-life decisions (Table 4).

Perceptions of need for aid in the provision of end-of-life care were similar across religiosity groups, but very religious physicians perceived less of a need for additional guidance at the legal level. All groups expressed a high level of desire for support groups concerning the treatment of dying patients.

### Comments

There is increasing interest in the importance of religion in health and the provision of medical care. There are suggestions that religious observance is associated with improved clinical outcomes (17), that some patients are

interested in their physicians interacting with them on a religious level (18), and that physicians who attend to spiritual and religious concerns might grow both as individuals and practitioners (19). Physicians' recognition of the importance of spirituality in a patient's life may enhance the physician-patient relationship and the benefits of medical care, particularly at the end of life. However, we present data that demonstrate another effect of religion at the end of life: Physician religiosity may translate into different end-of-life care. Not only were the attitudes of very religious physicians different than those of their less religious counterparts, but very religious physicians reported withdrawing care from their patients less often. While this finding previously has been shown concerning neonates in a cross-cultural context (1), the data presented here derive from a homogenous cohort of physicians, suggesting that the end-of-life care a patient receives will vary based on the religiosity of his or her physician.

TABLE 4

*Relationship of Religiosity to Factors Influencing Physicians' End-of-Life Treatment Decisions and Perceived Needs*

	Not Religious (n=141)	Moderately Religious (n=262)	Very Religious (n=40)	Total Sample (n=443)
<b>Factors Influencing End-of-Life Treatment Decisions<sup>a</sup> Mean (SD)</b>				
A doctor must prolong life	<b>3.25 (1.2)*‡</b>	<b>3.72 (1.2)‡</b>	<b>4.03 (1.2)*</b>	3.60 (1.2)
A doctor must prevent suffering	<b>4.54 (0.8)*</b>	<b>4.59 (0.7)†</b>	<b>4.23 (0.9)*†</b>	4.51 (0.8)
The patient's religious beliefs	<b>3.01 (1.5)*</b>	<b>3.25 (1.4)†</b>	<b>3.66 (1.4)*†</b>	3.21 (1.5)
The doctor's religious beliefs	<b>1.51 (1.1)*‡</b>	<b>2.24 (1.5)†‡</b>	<b>4.10 (1.2)*†</b>	2.17 (1.5)
The current law	<b>3.82 (1.2)*</b>	<b>3.85 (1.7)†</b>	<b>3.34 (1.2)*†</b>	3.79 (1.2)
The policy on the ward	<b>3.26 (1.4)</b>	<b>3.39 (1.2)†</b>	<b>2.87 (1.2)†</b>	3.30 (1.3)
Economic considerations	1.76 (1.1)	2.06 (1.2)	1.68 (0.7)	1.93 (1.6)
The patient's wishes	4.33 (1.0)	4.26 (1.0)	4.18 (1.0)	4.27 (1.0)
The family's wishes	3.18 (1.2)	3.30 (1.2)	3.15 (1.1)	3.25 (1.2)
The patient's quality of life	4.14 (1.1)	4.10 (1.1)	3.89 (1.1)	4.09 (1.1)
<b>Physician's Needs Concerning End-of-Life Care<sup>a</sup> Mean (SD)</b>				
To have supportive group discussions to help in the treatment of dying patients	3.72 (1.1)	3.80 (1.1)	3.92 (0.77)	3.78 (1.0)
To receive clearer guidelines on the level of the hospital ward	3.30 (1.5)	3.45 (1.4)	3.25 (1.4)	3.39 (1.5)
To receive clearer guidelines on the level of the hospital	3.27 (1.5)	3.41 (1.5)	3.19 (1.4)	3.34 (1.5)
To receive clearer legal guidelines	<b>3.92 (1.4)</b>	<b>4.09 (1.3)†</b>	<b>3.46 (1.4)†</b>	3.98 (1.4)

SD = standard deviation

Values in **BOLD** are significantly different across the three groups at  $p < 0.05$ .

\* $p < 0.05$  for comparison between Not Religious and Very Religious groups.

† $p < 0.05$  for comparison between Moderately Religious and Very Religious groups.

‡ $p < 0.05$  for comparison between Not Religious and Moderately Religious groups.

<sup>a</sup> Responses on 5-point scale with a higher score indicating more agreement with the statement.

Many studies have shown that physician religiosity is related to attitudes toward end-of-life care. The same has been found for other health professionals (20–22). Religiosity has been strongly associated with physicians being less likely to report participating in euthanasia and physician-assisted suicide (1, 7, 9). These data are consistent with those findings. However, unlike euthanasia, which if it occurs at all, is a rare act stimulated (hopefully) by the will of the patient, withdrawing medical care is a common procedure that often occurs in the setting of patient decisional incapacity (23). Among patients dying in one U.S. hospital, 74% died only after a treatment was withdrawn (24). The decreased likelihood of the withdrawal of life-sustaining treatment reported by very religious physicians requires confirmation by review of clinical data. In addition, these differences might be explained by very religious physicians treating a preponderance of very religious patients. If that were the case, then the variation in withdrawing care might be a reflection of patient preferences. However, our data suggest that secular patients receiving care from very religious physicians might be at risk for less palliation and more aggressive care than they might want unless care were transferred to another physician.

The physicians included in this study are from a single culture. The religion of these physicians differs from that of most other physicians worldwide. However, the single-religion cohort permits the study of the relationship between religiosity and end-of-life care behaviors without the complexity of religious variation. Attitudes toward end-of-life care have been shown to vary across religious groups (25). The views expressed by the physicians in this study reflect Jewish law, which specifies the infinite value of human life (26) and the physician's imperative to heal (27). But the views must also be seen in the context of Israel, where in practice withholding care is acceptable, but withdrawing care is not yet clearly permissible (13, 28). No law in Israel clearly refers to these practices or to end-of-life care. Thus, the divergence between religious and non-religious physicians in withdrawing behavior may be larger than would be seen in societies that embrace care withdrawal. Conversely, these findings suggest that variation in physician practices by religiosity could have substantial implications for their Israeli patients.

These findings emphasize the importance of communication between physicians and pa-

tients about end-of-life care. Even for patients with chronic disease, such communication is not the rule (14, 29). We learn from these data that end-of-life communication should not be a one-way conversation. In addition to eliciting the patient's goals and preferences, the physician must express his or her views to the patient if these will affect care. Patients should know whether their physicians would be willing to withdraw care should the circumstances merit and whether their physicians would be willing to provide analgesia even if it meant cutting short life.

End-of-life communication was not strongly related to religiosity. If anything, more religious physicians agreed slightly more often with a patient's right to information and to participate in important care decisions. This finding is consistent with the more religious physicians' views on end-of-life care emanating from religious values rather than from a global paternalistic orientation. The factors described by physicians as influencing end-of-life treatment decisions are also consistent with religious values superimposed on medical decision making. Religious physicians were more likely to derive guidance in end-of-life decisions from religious views and somewhat less likely to rely on rules, but were no less likely to consider the views of patient and family.

The influence of religious views on withholding life-sustaining care from patients is evidenced by the striking comparison of intended life-sustaining care for the older man with metastatic cancer compared to what physicians would want for themselves in similar clinical circumstances. The very religious physicians held precisely the same views for the older man as they did for themselves, suggesting an underlying ethic that guides care. The less religious physicians wanted very different care for themselves than they would provide to the older man. Whether these responses suggest that non-religious physicians would more often rely on patients' preferences and thus are more flexible in their care decisions, and whether religious physicians would be less willing to withhold care if patients so desired requires study. The findings seem to indicate that very religious physicians have fewer dilemmas concerning end-of-life care, since they are guided by clear religious guidelines, while less religious and secular physicians face more internal conflict and perhaps more stress when treating terminally ill patients.

## Conclusion

This study confirms that religiosity is an important factor in physicians' end-of-life views. The findings suggest that these views directly translate into end-of-life care behaviors that can have an impact on the way that their patients die. Revealing these perspectives is critical to providing end-of-life care that reflects patients' goals and preferences. These data demonstrate the need for careful evaluation of how religiosity and other physician beliefs shape the end-of-life care they provide. Further research into end-of-life practices in other cultures, such as in the religious diversity of the U.S., and across cultures, is needed in order to enhance our understanding of the effects of religiosity on end-of-life care. Better understanding of such influences may lead to development of interventions that will improve end-of-life care.

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