Religious Characteristics of U.S. Physicians

A National Survey

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BACKGROUND: Patients' religious commitments and religious communities are known to influence their experiences of illness and their medical decisions. Physicians are also dynamic partners in the doctor–patient relationship, yet little is known about the religious characteristics of physicians or how physicians' religious commitments shape the clinical encounter.

OBJECTIVE: To provide a baseline description of physicians' religious characteristics, and to compare physicians' characteristics with those of the general U.S. population.

DESIGN/PARTICIPANTS: Mailed survey of a stratified random sample of 2,000 practicing U.S. physicians. Comparable U.S. population data are derived from the 1998 General Social Survey.

MEASUREMENTS/RESULTS: The response rate was 63%. Fifty-five percent of physicians say their religious beliefs influence their practice of medicine. Compared with the general population, physicians are more likely to be affiliated with religions that are underrepresented in the United States, less likely to say they try to carry their religious beliefs over into all other dealings in life (58% vs 73%), twice as likely to consider themselves *spiritual* but not *religious* (20% vs 9%), and twice as likely to cope with major problems in life without relying on God (61% vs 29%).

CONCLUSIONS: Physicians' religious characteristics are diverse and they differ in many ways from those of the general population. Researchers, medical educators, and policy makers should further examine the ways in which physicians' religious commitments shape their clinical engagements.

KEY WORDS: religion; physicians; spirituality; survey.
DOI: 10.1111/j.1525-1497.2005.0119.x
J GEN INTERN MED 2005; 20:629–634.

In recent years, an expansive medical literature has considered how and to what extent patients' religious and spiritual characteristics influence their health.[1,2] Some questions addressed by this research remain unresolved. For example, there is still disagreement regarding whether religious beliefs or practices, or different levels of spirituality, confer some quantifiable health benefit.[3–6] Regarding other questions, there is consensus. For example, it is clear that patients' religious commitments and religious communities do influence medical decisions, assign meaning to the experiences of illness, and provide resources for coping with suffering.[5,7,8]

In the context of this consensus, professional attention to patients' religious and spiritual concerns is one part of a broader movement toward a more patient-centered,[9] culturally competent,[8,10,11] narrative,[12] and holistic[13] medicine. This movement emphasizes the notion that patients interact with the health care system from a specific language, culture, community, and tradition, all of which shape patients' decisions and experiences related to illness. Given our society's extensive ethnic, cultural, and religious diversity, it follows that physicians must be attentive to and respectful of the ways in which patients' fundamental values may conflict with a physician's deeply held convictions,[8,10,11,14] possibly in ways that seem foreign or irrational to the physician.[15,16]

While much attention has been given to *patients*' religious and other values, little attention has been given to the way in which *physicians*' particular cultures, communities, and values may influence the clinical encounter. The American Association of Medical Colleges has called medical educators to teach students how to "incorporate awareness of spirituality, and culture beliefs and practices, into the care of patients in a variety of clinical contexts . . . [and to] recognize that their own spirituality, and cultural beliefs and practices, might affect the ways they relate to, and provide care to, patients."[17] Despite such aims, little empirical data have been available regarding physicians' religious characteristics, how such characteristics compare with those of the general population, or how physicians' religious commitments shape their clinical engagements.

What is known about physicians' religious characteristics comes primarily from studies that have been limited to family physicians,[18–20] women physicians,[21] and physicians from a few discrete medical centers.[22] These studies suggest that family physicians are comparable to the general population with regard to religious characteristics[20] and are generally more religious than physicians from other specialties.[21] Yet, the limited sampling frames of these prior studies make it difficult to generalize such findings to the broader physician population. The goal of this study was to provide a baseline description of physicians' religious characteristics, and to compare physicians' characteristics with those of the general U.S. population. To do this, we surveyed a national probability sample of physicians using multidimensional measures of religion and spirituality, and then compared physicians' responses with those obtained on the General Social Survey (GSS), a study of a national probability sample of U.S. households.

None of the authors have any financial or other conflicts of interest to report regarding this study or this article.

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Accepted for publication February 1, 2005

METHODS

We mailed a confidential, self-administered, 12-page questionnaire to a stratified random sample of 2,000 practicing U.S. physicians aged 65 years or younger, chosen from the American Medical Association Physician Masterfile—a database intended to include all physicians in the United States. We stratified by physician specialty in order to oversample several subspecialties that deal particularly with death, existential suffering, and moral complexities (including geriatrics, psychiatry, pediatric subspecialties, pulmonary and critical care, oncology, maternal–fetal medicine, physical medicine and rehabilitation, and pain medicine). Physicians received up to 3 separate mailings of the questionnaire—titled "Religion and Spirituality in Medicine: Physicians' Perspectives" (RSMPP). The third mailing offered $20 for participation. To decrease error from data entry, all data were double keyed, cross-compared, and corrected against the original questionnaires. This study was approved by the University of Chicago Institutional Review Board.

In order to compare physicians with the general population, we analyzed data from the 1998 GSS. The GSS is a biennial study that measures a large number of demographic and opinion variables in an unstratified probability sample of all U.S. households. Detailed information about its methods is available at http://www.icpsr.umich.edu/GSS. Importantly, half of the 1998 GSS administration (respondent $n=1,445$) included an instrument called the Brief Multidimensional Measure of Religion/Spirituality,[23] from which we derived the measures of religion that were included in our survey of physicians.

Questionnaire Content: Religious Characteristics

Although a full consideration of the theoretical underpinnings of each dimension of religiosity is beyond the scope of this paper, our analysis considers constructs that are well validated in prior social science and psychological research.[23] Each construct is described briefly here.

Religious Affiliation. Respondents were asked, "What is your religious affiliation?" Response categories map onto categories used in the GSS (Table 1). For the purposes of this analysis, Unitarians and those who marked "Other—Christian" are coded as Protestants.

Intrinsic Religiosity. Intrinsic religiosity is a construct that represents the extent to which an individual embraces his religion as the "master motive" that guides and gives meaning to his life,[24] and is measured here as agreement or disagreement with the statement, "I try hard to carry my religious beliefs over into all my other dealings in life." We crafted a parallel item for the RSMPP that focuses on physicians' clinical work: "My religious beliefs influence my practice of medicine."

Frequency of Religious Service Attendance. The frequency of attendance of religious services is one of the most widely used metrics of what has been called *organizational*[23] or *participatory*[25] religiosity. In our analysis, respondents are collapsed into 3 categories: those who report never attending religious service, those who attend once a month or less, and those who attend 2 to 3 times a month or more.

Table 1. Religious Affiliation of Physicians Compared with the U.S. Population

Affiliation	Physicians, % (*N*)	U.S. Population,* % (*N*)	*P* (χ^2)
Protestant	38.8 (427)	54.7 (800)	.00
Catholic	21.7 (244)	26.7 (370)	.01
Jewish	14.1 (181)	1.9 (26)	.00
None†	10.6 (117)	13.3 (198)	.06
Hindu	5.3 (53)	0.2 (1)	.00
Muslim	2.7 (33)	0.5 (5)	.00
Orthodox	2.2 (22)	0.5 (7)	.00
Mormon	1.7 (17)	0.4 (6)	.00
Buddhist	1.2 (13)	0.2 (3)	.01
Other	1.8 (18)	1.6 (21)	.70
Total	100 (1125)	100 (1437)	

**U.S. population estimate from 1998 General Social Survey data.*
†For physicians, includes Atheist (2.0%), Agnostic (1.5%), and None (7.1%).

Beliefs. Physicians were asked, "Do you believe in God?" and "Do you believe there is a life after death?" Response options were *Yes*, *No*, and *Undecided*.

Spirituality Versus Religiosity. In recent years, there has been a trend toward the preference of the study of *spirituality* rather than *religion*.[26–28] There is still disagreement as to what *spirituality* means,[28,29] but it has been proposed as "broader" than religion such that many persons who are not religious may still be spiritual.[26] In this study, we allowed physicians to define themselves by asking, "To what extent do you consider yourself a spiritual person?" grouped with the parallel question, "To what extent do you consider yourself a religious person?" Responses are dichotomized into those who answer *Very* or *Moderately*, and those who answer *Slightly* or *Not at all*.

Religious Coping. Respondents were asked to indicate the extent to which the following are involved in the way they cope with major problems in their life: (1) "I try to make sense of the situation and decide what to do without relying on God," and (2) "I look to God for strength, support and guidance." Responses to each item are dichotomized into those who answer *A great deal* or *Quite a bit*, and those who answer *Somewhat* or *Not at all*.

Demographics. In the RSMPP, the variables of gender, age, primary specialty, foreign versus U.S. medical school graduation, and region were derived from the Physician Masterfile data.

Statistical Analysis

Case weights for the RSMPP were assigned and included in analyses to account for the sampling strategy and modest differences in response rate by gender and foreign medical graduation.[30] The GSS data were weighted by the number of adults in the household to generate estimates for the full adult population. Missing data were excluded from the analysis in both data sets. We first generated estimated proportions for the various survey items. We then utilized the Pearson χ^2 test and logistic regression to examine differences between physicians and the general population, and differences among physicians by religious affiliation and specialty. All analyses take into account case weights by utilizing the survey commands of Stata/SE 8.0 (Stata Corp., College Station, Tex).

Table 2. Other Religious Characteristics of Physicians Compared with the U.S. Population

Religious Characteristic	Physicians (*N*=1144) (%)	U.S. Population* (*N*=1445) (%)	Odds Ratio Adjusted for Affiliation OR (95% CI)
Intrinsic religiosity			
I try hard to carry my religious beliefs over into all my other dealings in life (*Agree* or *Strongly agree*)	58	73	0.6 [0.5 to 0.7]
Attendance at religious services			
Never	10	19	0.4 [0.3 to 0.5]
Once a month or less	44	41	0.9 [0.7 to 1.1]
Two times a month or more	46	40	1.8 [1.4 to 2.2]
Beliefs			
Believe in God	76	83	0.8 [0.6 to 1.0]
Believe in life after death	59	74	0.6 [0.5 to 0.8]
Religiosity and/or spirituality			
Religious and spiritual	52	53	1.2 [0.99 to 1.5]
Religious, not spiritual	4	9	0.4 [0.2 to 0.6]
Spiritual, not religious	20	9	2.4 [1.8 to 3.2]
Neither religious nor spiritual	23	29	0.6 [0.5 to 0.8]
Religious coping			
I look to God for strength, support, and guidance (*A great deal* or *Quite a bit*)	48	64	0.6 [0.5 to 0.7]
I try to make sense of the situation and decide what to do without relying on God (*A great deal* or *Quite a bit*)	61	29	3.5 [2.9 to 4.3]

**U.S. population estimate from General Social Survey data.*
†Physicians compared with U.S. population (logistic regression).
OR, odds ratio; CI, confidence interval.

Survey Response

Of the 2,000 potential respondents to the RSMPP, an estimated 9% were ineligible because their addresses were incorrect or they were deceased. Among eligible physicians, our response rate was 63% (1,144/1,820). Response rates did not differ by age, region, or board certification. Men were slightly less likely to respond than women (61% vs 67%, $P=.03$), and foreign medical graduates were less likely to respond than U.S. medical graduates (54% vs 65%, $P<.01$).

RESULTS

Among physicians, 55% agree with the statement, "My religious beliefs influence my practice of medicine." As seen in Table 1, minority religions are overrepresented among physicians as compared with the U.S. population. Although *Atheist* and *Agnostic* were not options on the GSS, the total proportion of physicians who identify their affiliation as *Atheist*, *Agnostic*, or *None* (10.6%) was similar to the proportion of the general population who reported *None* (13.3%, $P=.06$). As seen in Table 2, even after adjustment for differences in religious affiliation, physicians differ from the U.S. population on multiple other religious measures. In Table 3, physicians' responses to 3 core survey items are compared based on the physicians' religious affiliation, with Protestants (the largest subpopulation) as the index group. Table 4 lists outcomes for intrinsic religiosity and religious coping by physician specialty and compares each specialty with the general population.

In checks for response bias, we found no difference in intrinsic religiosity or frequency of religious service attendance by response wave, and among 20 nonrespondents contacted

Table 3. Physician Religious Characteristics by Religious Affiliation

Religious Affiliation (*N*)	Intrinsic Religiosity*		Religion Influences Medicine†		Religious Coping‡	
	%	OR (95% CI)	%	OR (95% CI)	%	OR (95% CI)
Protestant (427)	73	1.0 [referent]	70	1.0 [referent]	60	1.0 [referent]
Catholic (244)	68	0.8 [0.5 to 1.1]	63	0.7 [0.5 to 1.1]	58	0.9 [0.6 to 1.3]
Jewish (181)	34	0.2 [0.1 to 0.3]	31	0.2 [0.1 to 0.3]	15	0.1 [0.1 to 0.2]
Atheist, Agnostic, or None (117)	20	0.1 [0.05 to 0.2]	14	0.07 [0.04 to 0.1]	8	0.1 [0.03 to 0.1]
Hindu (53)	31	0.2 [0.1 to 0.3]	37	0.2 [0.1 to 0.5]	66	1.3 [0.7 to 2.4]
Muslim (33)	40	0.2 [0.1 to 0.6]	59	0.6 [0.3 to 1.4]	74	1.8 [0.7 to 4.7]
Orthodox (22)	70	0.9 [0.3 to 2.4]	63	0.7 [0.3 to 1.9]	57	0.9 [0.3 to 2.3]
Mormon (17)	76	1.1 [0.4 to 3.6]	72	1.1 [0.3 to 3.5]	70	1.5 [0.5 to 4.5]
Buddhist (13)	67	0.8 [0.2 to 2.9]	89	3.5 [0.4 to 28.1]	21	0.2 [0.04 to 0.9]
Other (18)	76	1.2 [0.4 to 3.7]	69	0.9 [0.3 to 2.8]	62	1.1 [0.4 to 3.0]

Odds ratios by logistic regression with Protestants as the index category.
**Intrinsic religiosity: "I try hard to carry my religious beliefs over into all my other dealings in life,"* Agree or Strongly agree.
†Religion influences medicine: "My religious beliefs influence my practice of medicine," Agree *or* Strongly agree.
‡Religious coping: When faced with a major problem . . . "I look to God for strength, support and guidance," A great deal or Quite a bit.
OR, odds ratio; CI, confidence interval.

Table 4. Intrinsic Religiosity and Religious Coping by Primary Specialty

Primary Specialty (*N*)	Intrinsic Religiosity†		Religious Coping‡	
	%	OR (95% CI)	%	OR (95% CI)
[U.S. population* (1445)]	73	1.0 [referent]	64	1.0 [referent]
Family practice (158)	70	0.9 [0.6 to 1.2]	58	0.8 [0.5 to 1.1]
Pediatric subspecialties (60)	64	0.7 [0.3 to 1.4]	51	0.6 [0.3 to 1.2]
General pediatrics (87)	61	0.6 [0.4 to 0.9]	49	0.5 [0.3 to 0.8]
Obstetrics and gynecology (80)	60	0.5 [0.3 to 0.9]	49	0.5 [0.3 to 0.9]
Surgery—all (100)	62	0.6 [0.4 to 0.9]	51	0.6 [0.4 to 0.9]
Medical subspecialties (231)	52	0.4 [0.3 to 0.6]	41	0.4 [0.3 to 0.6]
General internal medicine (129)	52	0.4 [0.3 to 0.6]	45	0.5 [0.3 to 0.7]
Anesthesiology (39)	50	0.4 [0.2 to 0.7]	56	0.7 [0.3 to 1.4]
Psychiatry (100)	49	0.4 [0.2 to 0.6]	36	0.3 [0.2 to 0.5]
Radiology (25)	48	0.3 [0.2 to 0.8]	27	0.2 [0.1 to 0.5]
Other (133)	57	0.5 [0.3 to 0.7]	49	0.5 [0.4 to 0.8]

Odds ratios are for logistic regression with dummy variables for each specialty and U.S. population as the index group.
**U.S. population estimate from 1998 General Social Survey data.*
†Intrinsic religiosity: "I try hard to carry my religious beliefs over into all my other dealings in life," Agree or Strongly agree.
‡Religious coping: When faced with a major problem . . . "I look to God for strength, support and guidance," A great deal or Quite a bit.
OR, odds ratio; CI, confidence interval.

by telephone after the study, 75% (vs 58% of respondents) endorsed intrinsic religiosity. In addition, survey response rates did not differ by region in spite of the fact that respondents from the South and Midwest were more likely to endorse intrinsic religiosity than those from the Northeast and the West (South 63%, Midwest 62%, East 49%, West 57%, $\chi^2 - P = .009$). Counter to our expectations, the proportion of respondents who reported religious affiliations as *Atheist*, *Agnostic*, or *None* declined slightly in later waves ($P < .05$). The latter finding suggests that religious physicians may have been less likely to respond to our survey than nonreligious physicians.

DISCUSSION

To the extent that patients' religious characteristics are similar to those of the general population, this study suggests ways in which physicians are likely to differ from those for whom they provide care. Physicians and population members are equally likely to have some religious affiliation, but physicians are much more likely to belong to religious traditions that are underrepresented in the United States. Physicians are more likely than population members to attend religious services regularly, but less likely to consciously make efforts to apply their religious beliefs to other areas of life. Physicians are more likely to describe themselves as "spiritual" as distinct from religious, whereas for the general population, spirituality and religion appear to be more tightly connected. Finally, our data suggest that patients and physicians are likely to differ in their reliance upon God as a means of coping and making decisions in the context of major illness. While most patients will "look to God for strength, support, and guidance," most physicians will instead try to "make sense of the situation and decide what to do without relying on God." How such differences shape the clinical encounter is unknown.

We found that Jewish, Hindu, and Muslim physicians in the United States are only about half as likely as those with Christian affiliations to say that they try to carry their religious beliefs into other dealings in life. This may be more of a methodological limitation than a real-world phenomenon. That is, the apparent incongruity between religious affiliation and *intrinsic religiosity* among Jewish, Hindu, and Muslim physicians may simply be a reflection of survey measures that are inadequate to tap religiousness in these traditions,[31] or may reflect the overrepresentation of secular members in some traditions relative to others. That said, it may also be that in a culture where Christians make up the large majority of both physicians and patients, physicians from underrepresented religious traditions find it more difficult to live out their religious commitments publicly. Or perhaps, physicians of underrepresented traditions take pains to limit the overt influence of their religious commitments in recognition of the discordance between their own religions and those of their patients. In the end, further study is required to understand the roots of these findings.

This study confirms Daaleman and Frey's[20] finding that family physicians are comparable to the general population with regard to religious characteristics, and Frank et al.'s[21] finding that family physicians and pediatricians are generally more religious than physicians from other specialties. Our finding that psychiatrists are among the most secular physicians is also consistent with earlier studies.[21,32–34] These relationships between religiosity and clinical specialty deserve further exploration.

Prior research has found religious variables to be associated with different practices regarding euthanasia and physician-assisted suicide,[35–39] writing "do not resuscitate" orders,[40] initiation and withdrawal of life-sustaining therapies,[40,41] prescription of birth control,[42] and abortion.[42–45] Yet, apart from these areas of overt moral controversy, little is known about the ways in which physicians' religious commitments "affect the ways they relate to, and provide care to, patients."[17] The cultural competency literature has emphasized how commonly discordance in values may arise between the physician and patient, but by most accounts the source of the discordance is assumed to be the diverse cultures and values of patients. Physicians are presented as more or less generically shaped by the prevalent medical culture.[8,10,11] Our data suggest that such conceptualizations may inadequately account for the diversity of values that physicians bring to clinical encounters, at least to the extent that such values are shaped by

religion. Empirical studies of the connections between religious commitments and the care of patients may provide data that will help to foster the self-awareness in physicians for which many medical educators and policy makers hope.[17]

Limitations

Our analysis is limited by the survey measures used. Within each overarching religious affiliation, there are numerous meaningful subdivisions that were not measured, such as evangelical versus mainline Protestant, and Orthodox versus Conservative versus Reform Judaism. Furthermore, we recognize that all survey measures incompletely represent the ways in which religious commitments are embodied and experienced in any given individual or community. Although our study includes well-validated measures of what has been called "generic religion,"[46] some have challenged this reductive approach, suggesting that religion is better understood and measured within the context of the specific language and tradition in which particular religions find expression.[29] For example, Christian, Jewish, Hindu, Muslim, and Buddhist physicians almost certainly have different things in mind when they affirm belief in "life after death." It should also be noted that the small numbers in some subspecialties and religious groups limit the stability of the estimated proportions and relationships for those groups. Finally, although our data did not suggest a substantial response bias related to physician religiosity, other less overt forms of response bias cannot be ruled out.

CONCLUSION

Limitations notwithstanding, this study provides a baseline map of the religious characteristics of U.S. physicians as compared with the general population, and points to the diversity of religious commitments that enter clinical encounters from the perspectives of physicians as well as those of patients. We hope this will serve as a starting point for further research into the ways in which physicians' religious commitments shape their clinical engagements.

We are indebted to Colm O'Muircheartaigh and Martha Van Haitsma for their assistance with sampling design and survey methodologies, to Terri Rossi and Michelle Schumacher for their tireless assistance in data collection and management, and to Daniel Hall for his helpful comments on this manuscript. This study was funded by grant support from The Greenwall Foundation, New York, NY, ''The Integration of Religion and Spirituality in Patient Care among U.S. Physicians: A Three-Part Study,'' and via the Robert Wood Johnson Clinical Scholars Program (Drs. Curlin, Chin, and Lantos).

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