

Correlates of Self-Perceptions of Spirituality in American Adults

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ABSTRACT

To advance knowledge in the study of spirituality and physical health, we examined sociodemographic, behavioral, and attitudinal correlates of self-perceptions of spirituality. Participants were a nationally representative sample of 1,422 adult respondents to the 1998 General Social Survey. They were asked, among other things, to rate themselves on the depth of their spirituality and the depth of their religiousness. Results indicated that, after adjustment for religiousness, self-perceptions of spirituality were positively correlated with being female ($r = .07, p < .01$), having a higher education ($r = .12, p < .001$), and having no religion ($r = .10, p < .001$) and inversely correlated with age ($r = -.06, p < .05$) and being Catholic ($r = -.08, p < .01$). After adjustment for these sociodemographic factors, self-perceptions of spirituality were associated with high levels of religious or spiritual activities (range in correlations = .12–.38, all $p < .001$), low cynical mistrust, and low political conservatism (both $r = -.08, p < .01$). The population was divided into 4 groups based on their self-perceptions of degree of spirituality and degree of religiousness. The spiritual and religious group had a higher frequency of attending services, praying, meditating, reading the Bible, and daily spiritual experience than any of the other 3 groups (all differences $p < .05$) and had less distress and less mistrust than the religious-only group ($p < .05$ for both). However, they were also more intolerant than either of the nonreligious groups ($p < .05$ for both) and similar on intolerance to the religious-only group. We conclude that sociodemographic factors could confound any observed association between spirituality and health and should be controlled. Moreover, individuals who perceive themselves to be both spiri-

tual and religious may be at particularly low risk for morbidity and mortality based on their good psychological status and ongoing restorative activities.

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INTRODUCTION

The possibility that religiousness or spirituality is a protective factor that promotes good physical health has led to a proliferation of epidemiological and psychological research in this area. Two recent reviews of the literature on religiousness and spirituality and physical health (1,2) came to the same conclusion: The strongest and most consistent evidence for any relation is in the link between church or service attendance and all-cause mortality. Those who attend church or services once a week or more frequently have a 25% reduction in risk of death from any cause. This reduction is independent of demographic factors, physical health status, physical function, social support, depression, and healthy risk-factor profiles (2). Because this association cannot be accounted for by these potential confounders, the responsible factors remain unknown. Of particular interest is whether all churchgoers are equally protected or whether there is a subgroup of members who, if they could be identified, are at particularly low risk.

People attend church or services for a variety of reasons. Some may have intrinsic motivations and live their religion by absorbing it and finding ways to practice the moral precepts taught (3). Others may go for more extrinsic reasons and use their religion as a means of socialization, fulfilling an obligation, or gaining status within an organization (3). Those with intrinsic motivations may be a particularly low risk group if their moral development fosters high levels of psychosocial protective factors including, for example, altruism and forgiveness rather than hostility, joy rather than anger, hope and faith rather than hopelessness and depression, and restorative practices such

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as prayer and meditation rather than chronic sympathetic arousal. Efforts to identify those with a more intrinsic religiousness have resulted in such conceptualizations as private religious practices (e.g., reading the Bible, frequent prayer, listening to religious radio) and depth of religiousness (e.g., deriving strength and comfort from religion, self-perceptions of how deeply religious one is). However, there are, at best, weak links between these constructs and physical health (2), signaling the need for better measures of intrinsic religiousness.

Spirituality is an appealing construct because it connotes an intrinsic characteristic that may or may not be induced by religiousness. Whereas religiousness tends to be defined by organizational beliefs, spirituality tends to be defined in personal, experiential terms (4). The personal nature of spirituality, however, creates problems for its scientific study. There is little agreement on what spirituality is, how to measure it, and the extent of its overlap with religiousness. Studies that have examined the health implications of spirituality have used a variety of measures that assess a variety of constructs, which, for the most part, have failed to find any links to physical health (2).

Despite the lack of conceptual clarity in the research literature, individuals appear to have little trouble rating themselves on their own level of spirituality. Two studies using small samples of participants selected either because they were medically ill (5) or because they came from preselected religious backgrounds (6) described characteristics of individuals who perceived themselves to be spiritual or religious. The "spiritual" people, in contrast to the "religious" people, were of higher socioeconomic status (5,6), less often from a Catholic background (5), more likely to be independent and reject traditional organized religion (6), and more likely to have a horizontal belief system (7) where concerns were less with connectedness to God and more with the interconnectedness of all living things (5,6). Because these findings were from highly selected samples, their generalizability to more representative populations is not known.

The purpose of this study was to identify sociodemographic, behavioral, and attitudinal correlates of self-perceptions of spirituality in a large, nationally representative sample of American adults. We identified these characteristics by comparing and contrasting individuals who considered themselves to be spiritual with those who considered themselves to be religious or to be neither spiritual nor religious. By so doing, we aimed to contribute to a refinement of the concept of spirituality and to identify potentially confounding factors that should be controlled in studies examining the role of spirituality on physical health.

METHODS

Sample

Data for the study came from the General Social Survey (GSS) (8) distributed by the Roper Center for Public Opinion Research. The GSS is an independently drawn sample of persons 18 years old or older who are English-speaking and live in noninstitutionalized settings in the United States. The survey, which has been collected annually from 1972 to 1998, has been

used in numerous studies aimed at the investigation of social characteristics of the American adult public. Its main areas of interest are social in nature, including socioeconomic status, social mobility, social control, family, race relations, civil liberties, and morality. It has been shown to be both reliable and representative of the adult population of the United States.

The GSS employs a split-ballot design to collect data. That is, some questions on the survey are asked of all respondents, whereas others are asked of a subset only. The choice of respondents to answer subsets is random; consequently, the smaller subsamples are representative of the larger sample and of the population as a whole. In the 1998 GSS survey, a special ballot on religiousness and spirituality was added. This ballot was designed by a group of experts in the field to represent the multiple dimensions included in the constructs of religion and spirituality (9). Preliminary psychometric data for each of these scales were presented earlier (9). The 1,422 individuals who responded to the special ballot formed the population under investigation.

Variables

The aim of this study was to create a sociodemographic, behavioral, and attitudinal profile of individuals who perceived themselves to be spiritual. Although the special ballot included questions about self-perceptions of spirituality and religiousness, public and private religiousness, religious denomination, daily spiritual experiences, religious history, religious social support, religious coping, religious beliefs and values, religious commitment, and forgiveness (9), we limited the religious variables chosen to keep the focus on the nonreligious descriptions. Thus, we selected only the behavioral factors (public and private religiousness), religious denomination, and the daily spiritual experiences items from the special ballot. Included, in addition, were attitudinal variables from the larger GSS data set. Table 1 presents a selected group of these variables; their scales; and, where appropriate, an alpha coefficient that estimates the internal consistency reliability of the scale.

Self-perceptions of spirituality and religiousness. Respondents were asked two questions regarding their overall spirituality and religiousness: "To what extent do you consider yourself a spiritual person?" and "To what extent do you consider yourself a religious person?" For each question, respondents rated themselves along a 4-point scale ranging from 1 (*very spiritual* or *very religious*) to 2 (*moderately spiritual* or *moderately religious*) to 3 (*slightly spiritual* or *slightly religious*) to 4 (*not at all spiritual* or *not at all religious*).

A four-level typology was created by dichotomization of each of the two scales and then combination of the two scales into a 2 × 2 table. For example, the spiritual and religious group ($n = 742, 52\%$) was composed of those respondents who answered *very* or *moderately* to both the question about spirituality and the question about religiousness. The spiritual-only group ($n = 143, 10\%$) was composed of those respondents who answered *very* or *moderately* to the spiritual question and *slightly* or *not at all* to the religion question. The religious-only group ($n = 128, 9\%$) was composed of those respondents who answered

TABLE 1
Variable Descriptions and Reliability Estimates for Scales

<i>Variable</i>	<i>Question</i>	<i>Anchors</i>	<i>a</i>
Religious/Spiritual activity			
Service attendance	How often do you attend religious services?	0 (<i>never</i>) to 8 (<i>several times a week</i>)	—
Private prayer	How often do you pray privately in places other than at church or synagogue?	1 (<i>never</i>) to 8 (<i>more than once a day</i>)	—
Meditation	Within your religious or spiritual tradition, how often do you meditate?	1 (<i>never</i>) to 8 (<i>more than once a day</i>)	—
Reads the Bible	How often have you read the Bible in the last year?	1 (<i>less than once a week</i>) to 5 (<i>several times a day</i>)	—
Daily Spiritual Experiences	The following questions deal with possible daily spiritual experiences. To what extent can you say you experience the following: (a) I feel God's presence (b) I find strength and comfort in my religion (c) I feel deep inner peace or harmony (d) I desire to be closer to or in union with God (e) I feel God's love for me, directly or through others (f) I am spiritually touched by the beauty of creation	1 (<i>never or almost never</i>) to 6 (<i>many times a day</i>)	.91
Religious subscale	Items a, b, d, and e		.91
Spiritual subscale	Items c and f		.70
Well-being			
Psychological distress	In the past 30 days how often did you feel: (a) So sad nothing could cheer you up, (b) nervous, (c) restless or fidgety, (d) hopeless, (e) that everything was an effort, and (f) worthless.	1 (<i>none of the time</i>) to 5 (<i>all of the time</i>)	.85
Cynical mistrust	Do you think most people would try to take advantage of you if they got a chance or would they try to be fair? Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? Would you say that most of the time people try to be helpful or that they are mostly just looking out for themselves?	1 (<i>would try to be fair</i>) or 2 (<i>would take advantage of you</i>) 1 (<i>most people can be trusted</i>) or 2 (<i>can't be too careful</i>) 1 (<i>try to be helpful</i>) or 2 (<i>just look out for themselves</i>)	.67
Self-rated health	Would you say your own health, in general, is excellent, good, fair, or poor?	1 (<i>poor</i>) to 4 (<i>excellent</i>)	—
Beliefs and values			
Conservatism	I'm going to show you a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?	1 (<i>extremely liberal</i>) to 7 (<i>extremely conservative</i>)	—
Fatalism	Do you agree or disagree? There is little that people can do to change the course of their lives.	1 (<i>strongly disagree</i>) to 4 (<i>strongly agree</i>)	—
Justice	Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important. Which do you think is the most important?	1 (<i>luck most important</i>) to 3 (<i>hard work most important</i>)	—
Nihilism	Do you agree or disagree? In my opinion, life does not serve any purpose.	1 (<i>strongly disagree</i>) to 4 (<i>strongly agree</i>)	—

(continued)

TABLE 1 (Continued)

Variable	Question	Anchors	<i>a</i>
Intolerance (total score)			.87
Atheists subscale	There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion ... (a) If such a person wanted to make a speech in your (city/town/community) against churches and religion, should he be allowed to speak or not? (b) Should such a person be allowed to teach in a college or university, or not? (c) If some people in your community suggested that a book he wrote against churches and religion should be taken out of your public library, would you favor removing this book, or not?	1 (yes, allowed to speak) or 2 (not allowed) 1 (yes, allowed to teach) or 2 (not allowed) 1 (not favor) or 2 (favor)	.71
Racists subscale	Or consider a person who believes that Blacks are genetically inferior. (same set of follow-up questions as Atheists subscale)	(same anchors as Atheists subscale)	.74
Militarists subscale	Consider a person who advocates doing away with elections and letting the military run the country. (same set of follow-up questions as Atheists subscale)	(same anchors as Atheists subscale)	.79
Communists subscale	Now, I should like to ask you some questions about a man who admits he is a communist. (same set of follow-up questions as Atheists subscale)	(same anchors as Atheists subscale)	.73
Homosexuals subscale	And what about a man who admits that he is a homosexual? (same set of follow-up questions as Atheists subscale)	(same anchors as Atheists subscale)	.79

slightly or not at all to the spiritual question and *very or moderately* to the religious question. The neither spiritual nor religious group ($n = 409$, 29%) was composed of those respondents who answered *slightly or not at all* to both the spiritual and religious questions.

Sociodemographic variables. The demographic indicators included age, sex, ethnicity, city size, geographic location, and marital status. Indexes of socioeconomic status were education and family income. The coding for these variables is presented in Table 2.

Religious denomination. Because respondents who identified themselves in different ways along the spiritual–religious continuum may have clustered along the lines of particular religious faiths, we included several dichotomous measures of religious affiliation. Respondents who stated that their religious preference was Catholic or no religion were coded as such. Respondents who stated that their preference was Protestant were then asked to indicate their denomination. With the classification scheme designed by Roof and McKinney (10), Protestant denominations were classified into three groups: conservative (e.g., Southern Baptists, Pentecostals), moderate (e.g., Luther-

ans, Methodists), and liberal (e.g., Episcopalians, Presbyterians).

Religious or spiritual activity. Several variables that assessed common religious behaviors were included to assess extent of religious activity. Church or service attendance represented the extent of public religious activity. Religious and spiritual practices included private prayer, meditation, and Bible reading. The Daily Spiritual Experience Scale (9) is a six-item scale that measures the frequency with which the respondent has spiritual experiences on a day-to-day basis. This scale has items that represent spiritual experiences phrased in religious terminology (Religious subscale $\alpha = .91$) and items that represent spiritual experiences that do not require religious terminology (Spiritual subscale $\alpha = .70$).

Well-being. We include three measures of well-being. The first, Psychological Distress, is a six-item index designed to assess depressive and anxious feelings over the month preceding the survey. The second measure is a three-item scale measuring cynical mistrust of the motives of others (11). The third measure is a standard item assessing self-rated health. Although self-rated health measures contain information about both phys-

TABLE 2
Description of Sociodemographic Factors and Religious Activity of the Special Spirituality/Religion Panel of the 1998 GSS Population

Variable	n	%
Sample size	1,422	
Sociodemographic factors		
Female	775	54.5
Ethnicity		
White	1,124	79.0
African American	194	13.6
Other	104	7.3
Age ^a	45.6	17
City size		
City	496	34.9
Suburb	526	37.0
Unincorporated area	75	5.2
Town or village	194	13.7
Open area (< 2,499)	131	9.2
Geographic location		
New England	70	4.9
Middle Atlantic	225	15.8
South Atlantic	260	18.3
North Central	339	23.8
South Central	256	18.0
Mountain	91	6.4
Pacific	181	12.7
Marital status		
Married	674	47.4
Widowed	142	10.0
Divorced/Separated	258	18.2
Never married	348	24.5
Education		
Less than high school	228	16.0
High school	747	52.5
Associate/Junior college	106	7.5
Bachelor's degree	228	16.0
Graduate degree	107	7.5
Family income		
Less than \$10,000	159	12.7
\$10,000–\$19,999	184	12.9
\$20,000–\$29,999	401	28.2
\$30,000–\$59,999	399	28.1
\$60,000–\$89,999	156	11.0
> \$90,000	123	8.6
Religious beliefs and activity		
Religious affiliation		
Protestant	774	54.4
Catholic	365	25.7
Jewish	26	1.8
Other	60	4.6
None	192	13.5
Religious attendance		
Several times a week	115	8.1
Every week	242	17.0
Nearly every week	203	14.3
About once a month	115	8.1
Several times a year	302	21.3

(continued)

TABLE 2 (Continued)

Variable	n	%
Less than once a year	151	10.6
Never	274	19.3
Frequency of prayer		
Several times a day	349	24.5
Once a day	421	29.6
Several times a week	201	14.1
Once a week	108	7.6
Less than once a week	308	21.7
Never	24	1.7
Frequency of meditation		
More than once a day	123	8.6
Once a day	187	13.2
A few times a week	129	9.1
Once a week	68	4.8
A few times a month	60	4.2
Once a month	46	3.2
Less than once a month	94	6.6
Never	654	46.0

Note. GSS = General Social Survey.

^aThese values are mean and standard deviation, respectively.

ical and mental health (12,13), they have been found to predict mortality (14–16) and coronary heart disease (17).

Beliefs and values. This domain is measured with four single-item indicators. The first, Conservatism, is an indicator of the political leanings of the respondent, where high scores denote political conservatism and low scores denote political liberalism. The second, Fatalism, measures the degree to which respondents believe that they can control their destiny. The third, Justice, measures beliefs about success being a function of hard work or lucky breaks. The fourth, Nihilism, measures beliefs about whether life has any purpose.

Intolerance. Because religious activity has been linked to intolerance toward certain groups (18), it is possible that respondents will vary in levels of intolerance based on their religious position. The GSS Intolerance Scale is composed of a total score and subscales scores that measure intolerance toward each of five different groups: atheists, racists, militarists, communists, and homosexuals. For each group, three questions were posed about whether a member of the specific subgroup should be allowed to make a speech, teach in a college or university, or have his or her books in a public library.

Statistical Analyses

The analytic goal of this study was to identify correlates of self-perceptions of spirituality. Toward this end, analyses followed several steps. First, to describe the population under study, frequency distributions for selected variables were determined. Second, to identify correlates of self-perceptions of spirituality and compare them to self-perceptions of religiousness, partial correlations between spirituality and religiousness and

the full set of demographic, behavioral, and attitudinal variables were calculated. To ensure that these correlations were not confounded by extraneous factors, they were determined first after the other spiritual/religious variable was partialled out and then after the other spiritual-religious variable and the full set of sociodemographic correlates were partialled out.

Next, we moved to an examination of the correlates of the four-level spiritual-religious typology in which information about both self-perceived spirituality and self-perceived religiousness was combined. To examine sociodemographic correlates of the four-level typology, we assumed that the direction of causality was that these factors predict placement on the typology rather than the reverse. Consequently, we modeled the association by regression of the typology (the dependent variable) on the sociodemographic factors (the independent variables) using multinomial logistic regression. This procedure is akin to logistic regression in that it computes the likelihood of being in one category of the dependent variable versus another, based on levels of the independent variables. However, it differs from logistic regression in that it allows the dependent variable to be more than two categories. Because our greatest interest is in understanding spirituality, we calculated the odds for these analyses with the spiritual and religious group as the referent and compared it to the other three groups.

In the final stage of the analyses, we posited that other factors, such as behaviors and attitudes, were associated with the spirituality-religiousness typology. Consequently, we modeled these associations by generating mean scores of the attitudinal-behavioral items based on levels of the typology. Given that levels of the typology were influenced by sociodemographic confounders, we adjusted first for these factors. All analyses were completed with the PROC CORR, PROC GLM, and PROC CATMOD procedures within the SAS software package.

RESULTS

Table 2 presents a description of the 1,422 respondents that were evaluated in the spirituality-religion panel of the 1998 GSS. The average age was 45.6 years, with 68% of participants falling within the approximate range of 28 to 62. The population was 54.5% female, 79% White, and 47.4% married, and 16% had less than a high school education. Approximately 34.9% lived in an urban area, and 36.3% lived in the South. These characteristics essentially mirrored those of the overall United States, where according to the 2000 census or the 2000 Current Population Survey (19), 50.9% were female, 75.1% were White, 52.9% were married, and 21.5% had less than a high school education.

With regard to religious activities, 80% of the sample was either Protestant (54.5%) or Catholic (25.5%), and 13.5% reported that they had no religion. Approximately 31.6% attended church or services nearly every week or more, 54.1% prayed at least once a day, and 21.8% meditated at least once a day. This was comparable to religious activity in the U.S. population (20).

Self-perceptions of spirituality and of religiousness were highly correlated ($r_{xy} = .63$). Table 3 presents correlations between these self-perceptions and the entire set of independent

variables. In general, there was a wide range of significant correlations (range = .07–.52), and those that were weak (e.g., .07) were nonetheless significant because of the large sample size. Among the demographic factors, self-perceptions of spirituality, after adjustment for religiousness, were associated with being female, younger, and better educated. In contrast, self-perceptions of religiousness, after adjustment for spirituality, were associated with being in an ethnic minority, older, and less well educated; living in a smaller town; and living in the South. Self-perceptions of spirituality were inversely correlated with being Catholic and positively correlated with having no religion, whereas self-perceptions of religiousness were correlated with being a conservative or moderate Protestant and inversely correlated with having no religion.

After adjustment for these sociodemographic differences, self-perceptions of spirituality were correlated significantly with all of the religious activities. However, these correlations were weaker than the corresponding correlations with religiousness. The only exceptions to this were for meditation and the Spiritual subscale of the Daily Spiritual Experience Scale, which were both more strongly related to self-perceptions of spirituality ($r_{xy} = .28$ and $.38$, respectively) than they were to self-perceptions of religiousness ($r_{xy} = .09$ and $.20$, respectively). Among the indexes of well being, self-perceptions of spirituality were inversely associated with cynical mistrust ($r_{xy} = -.08$), and self-perceptions of religiousness were associated with better self-rated health ($r_{xy} = .07$). Among the beliefs and values, spirituality was inversely related to being conservative ($r_{xy} = -.08$), in contrast to religiousness, which was positively related to being conservative ($r_{xy} = .14$). Spirituality was unrelated to being intolerant, in contrast to religiousness, which was associated with the Intolerance total score ($r_{xy} = .11$) and intolerance on the Atheist, Militarist, and Homosexual subscales ($r_{xy} = .12$, $.10$, and $.13$, respectively).

Our next step in the analyses was to examine the correlates of self-perceptions when information about spirituality and religiousness was combined to form the four-group typology. Table 4 focuses on the sociodemographic variables and presents the independent odds of having each of the variables, with the spiritual and religious group as the referent. Relative to this referent, the spiritual-only group had an 80% lower odds of being minority, a 46% lower odds of being from the South, and a 52% lower odds of being married. In addition, the spiritual-only group was younger and better educated. These demographic differences were less extreme when the religious-only group was compared to the referent and more extreme when the neither spiritual nor religious group was compared to the referent. The only exception to this was the educational level of the neither spiritual nor religious group, which was lower than the referent and considerably lower than the spiritual-only group.

Table 5 presents the behavioral and attitudinal profiles of each of the spiritual-religious subgroups, after the sociodemographic confounders were controlled. The spiritual and religious group engaged in more religious or spiritual activity than any of the other three groups. This included more frequent service attendance, private prayer, meditation, Bible reading, and daily

TABLE 3
Correlates of Self-Perceptions of Spirituality and Religiosity

Variable	Spirituality		Religiosity	
	Adjusted for Religiosity	Multiple Adjustments ^a	Adjusted for Spirituality	Multiple Adjustments ^b
Sociodemographic factors				
Female	.07**	—	.05	—
Minority	.03	—	.09***	—
Age	-.06*	—	.17***	—
City size ^c	.02	—	-.07*	—
South	.02	—	.10***	—
Married	-.02	.02	.11***	.07*
Education	.12***	—	-.11***	—
Family income	-.02	—	-.02	—
Denomination				
Conservative Protestant	-.03	—	.16***	—
Moderate Protestant	.01	—	.08**	—
Liberal Protestant	.00	—	.03	—
Catholic	-.08**	—	.06	—
No religion	.10***	—	-.42***	—
Religious/Spiritual activity				
Service attendance	.12***	.12***	.44***	.34***
Private prayer	.18***	.20***	.43***	.30***
Meditation	.27***	.28***	.16***	.09**
Reads the Bible	.19***	.18***	.32***	.26***
Daily spiritual experiences	.35***	.34***	.48***	.40***
Religious subscale	.29***	.28***	.52***	.43***
Spiritual subscale	.37***	.38***	.25***	.20***
Well-being				
Psychological distress	-.02	.00	.01	-.01
Self-rated health	.00	-.03	.00	.07*
Cynical mistrust	-.05	-.08**	.04	.05
Beliefs and values				
Conservatism	-.09***	-.08**	.19***	.14***
Fatalism	-.03	.00	.04	-.03
Nihilism	-.06*	-.02	-.09**	-.09**
Justice	.00	.01	.01	-.02
Intolerance				
Total score	-.05	.01	.21***	.11**
Atheists subscale	-.05	.01	.21***	.12***
Racists subscale	-.01	.03	.13***	.04
Military subscale	-.08*	-.03	.18***	.10**
Communists subscale	-.02	.03	.10**	.03
Homosexuals subscale	-.02	.04	.19***	.13***

^aAdjusted for religiosity, sex, age, race, education, income, city size, region, and religious affiliation. ^bAdjusted for spirituality, sex, age, race, education, income, city size, region, and religious affiliation. ^cLarger values indicate larger cities.

* $p < .05$. ** $p < .01$. *** $p < .001$.

spiritual experience. They experienced significantly less psychological distress and cynical mistrust than the religious-only group. They tended to be more politically conservative and less nihilistic (e.g., more inclined to believe that life has purpose) than the nonreligious groups. They were similar to the religious-only group on their level of intolerance, which was significantly higher than that observed in either of the two nonreligious groups.

In contrast, the spiritual-only group was more politically liberal and more likely to claim to have no religion (34%) than

any other group, including the neither spiritual nor religious group (26%). They engaged in religious and spiritual activities but not as frequently as the spiritual and religious group. Compared to the religious-only group, they engaged in fewer religious activities (e.g., service attendance, prayer, Bible reading, Daily Spiritual Experience—Religious subscale) but more spiritual activities (e.g., meditation, Daily Spiritual Experience—Spiritual subscale; nonsignificant trend, $p < .10$). They were more inclined to be nihilistic (e.g., to believe that life has

TABLE 4
Independent Sociodemographic Correlates of
Spirituality/Religion Typology

Variable	Spiritual Only ^a	Religious Only ^b	Neither Spiritual Nor Religious ^c
Female	0.76	0.69	0.59***
Minority	0.20***	0.51*	0.45***
Age	0.98***	1.00	0.98***
City size ^d	1.03	1.01	1.06*
South	0.54**	0.63*	0.57***
Married	0.48***	0.90	0.61**
Education	1.09*	0.95	0.91***
Family income ^e	1.01	1.00	1.03*
Model fit statistics			
χ^2	166.78		
df	24		
Pseudo R ²	.10		
N	1,422		

Note. Odds ratios are shown with the spiritual and religious group ($n = 742$) as the referent.

^a $n = 143$. ^b $n = 128$. ^c $n = 409$. ^dLarger values indicate larger cities. ^eLarger values indicate higher incomes.

* $p < .05$. ** $p < .01$. *** $p < .001$.

no purpose) than either one of the two religious groups and were more tolerant than the religious and spiritual group only.

The religious-only group (those who perceived themselves to be *slightly spiritual* or *not at all spiritual*) was distinctive in that they were higher on distress and cynical mistrust than the spiritual and religious group. Thus, within the religious groups, the self-perception of being *very* or *moderately* spiritual was associated with better psychological status.

DISCUSSION

To understand better what people mean when they call themselves spiritual, we analyzed data from a nationally representative population of American adults. By comparing, contrasting, and integrating self-perceptions of spirituality with self-perceptions of religiousness, we developed a sociodemographic, attitudinal, and behavioral profile. From these analyses, we made several observations that can help to advance our understanding of self-perceptions of spirituality, a construct that has been referred to as “obscure” (21) and “fuzzy” (6).

First, people who see themselves as spiritual have a different sociodemographic profile than those who see themselves as either religious or nonreligious. Self-perceptions of spirituality are associated with being younger, female, and highly educated. This is in contrast to self-perceptions of religiousness, which are more likely to be associated with being older, in an ethnic minority, less well educated, and living in the South. Furthermore, compared to those who see themselves as nonspiritual and nonreligious, those who perceive themselves to be both spiritual and religious differ on each of the sociodemographic factors studied. Because such factors as being younger, female, and highly edu-

cated are all related to good health, they could confound any observed relation between spirituality and health. That is, a finding that spirituality is associated with good health may be alternatively explained by the younger age, more frequent being female, or the higher socioeconomic status of those identified as spiritual. We believe that it is imperative to control for these sociodemographic factors before making inferences about any association between spirituality and health.

Second, people who see themselves as spiritual are not a homogeneous group. When information about spirituality and religiousness was combined into a four-level typology, it was clear that spiritual people actually comprised two subgroups that differ on ethnicity, age, education, marital status, and geographic region of residence. The larger group, spiritual and religious, composed 52% of our sample and had a demographic profile that was characteristic of religious people. The smaller group, spiritual only, composed only 10% of our sample and had a demographic profile that was characteristic of religious independents (22).

It was only when we studied the spiritual people as two distinct groups that we came on our most important finding: The spiritual and religious group appeared to be the most intrinsically religious. This group attended services, prayed, meditated, read the Bible, and had more daily spiritual experiences than any other group. In particular, they were higher than the spiritual-only group on their frequency of meditating, feeling deep inner peace or harmony, and being spiritually touched by the beauty of creation. Moreover, they were less distressed and less mistrusting than the religious-only group. They appeared to take the best from the spiritual side and the best from the religious side, an observation also made by others (5,6). The only characteristic on which they were not highly functioning was intolerance, which appeared to be a byproduct of religiousness, regardless of level of spirituality.

The spiritual-only group also appeared to be developing their spirituality but not as frequently or to the same degree. They prayed, meditated, and had daily spiritual experiences less often than the spiritual and religious group but more often than the neither spiritual nor religious group. The spiritual-only group has been described as “New Age” (6), but this observation may have been biased by the large number of individuals from New Age groups that were involved in that study. Although New Age characteristics were not measured in our study, we were impressed with how mainstream this group actually appeared. The main factors that distinguished them were their political liberalism, tolerance of the expression of diverse points of view, and unwillingness to claim any religious denomination. They appear to be more like Roof’s (23) description of baby boomers who renounced traditional religion to pursue their own, perhaps more circuitous, path for spiritual development.

One mechanism by which religion or spirituality may enhance physical health is via salutary psychosocial and psychophysiological status (24). As such, these data suggest the hypothesis that a subgroup of healthy individuals, or of healthy service attenders, who may be at particularly low risk for morbidity and mortality is the group who perceive themselves to be

TABLE 5
Comparison of Adjusted Mean Levels of Selected Variables by Spirituality and Religiousness Typology

Variable	Group 1: Spiritual and Religious	Group 2: Spiritual Only	Group 3: Religious Only	Group 4: Neither Spiritual Nor Religious
Sociodemographics (%)				
Married	51 ^{a,c}	39 ^b	51 ^c	41
Denomination (%)				
Conservative Protestant	29 ^{a,c}	16	22	21
Moderate Protestant	19	13	19	14
Liberal Protestant	07	04	07	05
Catholic	24 ^b	22 ^b	35 ^c	23
No religion	04 ^{a,c}	34 ^{b,c}	02 ^c	26
Religious/Spiritual activity				
Service attendance	4.86 ^{a,b,c}	2.26 ^b	3.79 ^c	1.82
Private prayer	6.60 ^{a,b,c}	4.71 ^{b,c}	5.67 ^c	3.62
Meditation	4.22 ^{a,b,c}	3.55 ^{b,c}	2.61	2.08
Reads the Bible	2.79 ^{a,b,c}	1.71 ^b	1.93 ^c	1.50
Daily spiritual experiences	4.61 ^{a,b,c}	3.46 ^{b,c}	3.85 ^c	2.70
Religious subscale	4.63 ^{a,b,c}	3.16 ^{b,c}	3.83 ^c	2.52
Spiritual subscale	4.57 ^{a,b,c}	4.03 ^c	3.88 ^c	3.07
Well-being				
Psychological distress	1.99 ^b	2.03	2.14 ^c	1.96
Self-rated health	3.10	2.96	3.11	3.02
Cynical mistrust	1.97 ^b	1.90	2.17	2.05
Beliefs and values				
Conservatism	4.17 ^{a,c}	3.60 ^{b,c}	4.13	3.93
Fatalism	1.93	1.89	1.83	1.98
Nihilism	1.48 ^{a,c}	1.72 ^b	1.49 ^c	1.72
Justice	2.53	2.59	2.60	2.55
Intolerance				
Total score	3.8 ^{a,c}	2.9	3.5 ^c	2.9
Atheists subscale	3.5 ^{a,c}	2.4 ^b	3.6 ^c	2.3
Racists subscale	4.5 ^c	3.9	3.8	3.3
Militarists subscale	4.0 ^{a,c}	3.9	3.8	3.3
Communists subscale	4.2 ^{a,c}	3.7	4.2	3.7
Homosexuals subscale	2.7 ^{a,b,c}	1.7	1.9	1.7

Note. Means are adjusted for sex, age, race, education, income, city size, and region. Group differences indicate significant differences ($p < .05$) between the groups as indicated by the following superscripts: a = different than Group 2; b = different than Group 3; c = different than Group 4. Group 1, $n = 742$; Group 2, $n = 143$; Group 3, $n = 128$; Group 4, $n = 409$.

both spiritual and religious. They have good psychosocial status by virtue of having low levels of distress and cynical mistrust, two risk factors for mortality (25–27), and potentially good psychophysiological status by virtue of having high levels of potentially restorative activities (e.g., service attendance, prayer, meditation, and daily experiences of comfort, peace, and awe), which may promote ongoing shifts from sympathetic arousal to parasympathetic relaxation or lower levels of cortisol secretion (see Ironson et al., this issue).

The strength of this study is its large, representative sample size. However this large sample is limited because even weak associations become statistically significant and more in-depth description of attitudes and behaviors is not possible. Moreover, a large number of statistical tests were conducted, and working at .05 level of significance, approxi-

mately 5% of the tests would be significant due to chance alone. However, we place validity in our findings because of their consistency with those of two similar studies conducted on highly select samples (5,6). We believe these studies complement ours and should be referred for more in-depth descriptions of attitudes and behaviors of people who perceive themselves to be spiritual.

In summary, the inherently personal nature of spirituality is perhaps its greatest strength but also its greatest weakness, at least as far as scientific study is concerned. Its strength lies in the possibility that it reflects the internalization of virtues advocated across numerous religious traditions and in the promise such a conceptualization offers for establishing a relation to physical health. Its weakness is that the wide variety of conceptualizations and assessment options limit comparisons across studies

and leave unanswered questions about consistency in research findings.

We took the approach of going to the general public and asking them to define for themselves where they believed they fell along the spirituality continuum rather than relying on our own preconceived notions about what spirituality is. We gained trust in the validity of these self-perceptions because they were consistent with religious or spiritual restorative behaviors and salutary psychological status. The combination of being both spiritual and religious is an intriguing concept because it may suggest that efforts toward spiritual development are maximized when pursued within the context of a supportive religious environment. That is, going each week to a serene place that encourages reflection, listening to sermons that advocate love and service to others, and experiencing the joy of joining in song in praise of faith may provide direct, ongoing, and reinforcing experiences of the virtues enjoyed by highly spiritual people. Conversely, it is not inconceivable that people who are already highly spiritual would seek out religious contexts and, in the process, develop their religiousness. We look forward to future studies that test whether individuals who perceive themselves to be both religious and spiritual are at particularly low risk for death and disease.

REFERENCES

- (1) McCullough ME, Hoyt WT, Larson DB, Koenig HG, Thoresen CE: Religious involvement and mortality: A meta-analytic review. *Health Psychology*. 2000, 19:211–222.
- (2) Powell LH, Shahabi L, Thoresen CE: Religion and spirituality: Linkages to physical health. Society for Epidemiologic Research Annual Meeting. Toronto, Ontario, Canada: 2001.
- (3) Allport GW, Ross JM: Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*. 1967, 5:432–443.
- (4) Spilka B, McIntosh DN: Religion and spirituality: The known and the unknown. American Psychological Association Annual Meeting. Toronto, Ontario, Canada: 1996.
- (5) Woods TE, Ironson GH: Religion and spirituality in the face of illness. *Journal of Health Psychology*. 1999, 4:393–412.
- (6) Zinnbauer BJ, Pargament KI, Cole B, et al.: Religion and spirituality: Unfuzzifying the fuzzy. *Journal for the Scientific Study of Religion*. 1997, 36:549–564.
- (7) Davidson J: Glock's model of religious commitment: Assessing some different approaches and results. *Review of Religious Research*. 1975, 16:83–93.
- (8) Davis JA, Smith TW: *General Social Surveys, 1972–1991*. Chicago: National Opinion Research Center, 1991.
- (9) Fetzer Institute/National Institute on Aging Working Group: *Multidimensional Measurement of Religiousness/Spirituality for Use in Health Research: A Report of the Fetzer Institute/National Institute of Aging Working Group*. Kalamazoo, MI: Fetzer Institute, 1999.
- (10) Roof WC, McKinney W: *American Mainline Religion: Its Changing Shape and Future*. New Brunswick, NJ: Rutgers University Press, 1987.
- (11) Demaris A, Yang R: Race, alienation, and interpersonal mistrust. *Sociological Spectrum*. 1994, 14:327–349.
- (12) Fylkesnes K, Forde OH: Determinants and dimensions involved in self-evaluation of health. *Social Science and Medicine*. 1992, 35:271–279.
- (13) Manderbacka K, Lundberg O, Martikainen P: Do risk factors and health behaviors contribute to self-ratings of health? *Social Science and Medicine*. 1999, 48:1713–1720.
- (14) Idler EL: Self-assessed health and mortality: A review of studies. In Maes S, Leventhal H, Johnston M (eds), *International Review of Health Psychology*. New York: Wiley, 1992, 33–54.
- (15) McCallum J, Shadbolt M, Wang D: Self-rated health and survival: A 7-year follow-up study of Australian elderly. *American Journal of Public Health*. 1994, 84:1100–1105.
- (16) Dasbach EJ, Klein R, Klein BEK, Moss SE: Self-rated health and mortality in people with diabetes. *American Journal of Public Health*. 1994, 84:1775–1779.
- (17) Moller L, Kristensen TS, Hollnagel H: Self-rated health as a predictor of coronary heart disease in Copenhagen, Denmark. *Journal of Epidemiology and Community Health*. 1996, 50:423–428.
- (18) Ellison CG, Musick MA: Southern intolerance: A Fundamentalist effect? *Social Forces*. 1993, 72:379–398.
- (19) United States Department of Commerce: U.S. 1990 Census data [online]. Available from <http://www.census.gov>
- (20) Gallup Organization: 2000 Gallup poll [online]. Available from <http://www.gallup.com>
- (21) Hood RW, Spilka B, Hunsberger B, Gorsuch R: *The Psychology of Religion: An Empirical Approach*. New York: Guilford, 1996.
- (22) Hayes BC: Religious independents within Western industrialized nations: A socio-demographic profile. *Sociology of Religion*. 2000, 61:191–207.
- (23) Roof WC: *A Generation of Seekers: The Spiritual Journeys of the Baby Boom Generation*. San Francisco: Harper, 1993.
- (24) Levin J: How religion influences morbidity and health: Reflections on natural history, salutogenesis and host resistance. *Social Science and Medicine*. 1996, 43:849–864.
- (25) Miller TQ, Smith TW, Turner CW, et al.: A meta-analytic review of research on hostility and physical health. *Psychological Bulletin*. 1996, 119:322–348.
- (26) Allison TG, Williams DE, Miller TD, et al.: Medical and economic costs of psychologic distress in patients with coronary artery disease. *Mayo Clinic Proceedings*. 1995, 70:734–742.
- (27) Denollet J, Brutsaert DL: Personality, disease severity, and the risk of long-term cardiac events in patients with a decreased ejection fraction after myocardial infarction. *Circulation*. 1998, 97:167–173.