

Prayer for Health Concerns

Results of a National Survey on Prevalence and Patterns of Use

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Background: Prayer is a common practice in the United States, yet little is known about the prevalence and patterns of use of prayer for health concerns.

Objective: To determine the prevalence and patterns of use of prayer for health concerns.

Methods: We conducted a national survey in 1998 (N = 2055, 60% weighted response rate) on use of prayer. Data were also collected on sociodemographics, use of conventional medicine, and use of complementary and alternative medical therapies. Factors associated with the use of prayer were analyzed using multivariable logistic regression.

Results: We found that 35% of respondents used prayer for health concerns; 75% of these prayed for wellness, and 22% prayed for specific medical conditions. Of those praying for specific medical conditions, 69% found prayer

very helpful. Factors independently associated with increased use of prayer ($P < .05$) included age older than 33 years (age 34-53 years: odds ratio [OR], 1.6 [95% confidence interval (CI), 1.3-2.1]; age ≥ 54 years: OR, 1.5 [95% CI, 1.1-2.0]); female sex (OR, 1.4 [95% CI, 1.1-1.7]); education beyond high school (OR, 1.5 [95% CI, 1.2-1.8]); and having depression, chronic headaches, back and/or neck pain, digestive problems, or allergies. Only 11% of respondents using prayer discussed it with their physicians.

Conclusions: An estimated one third of adults used prayer for health concerns in 1998. Most respondents did not discuss prayer with their physicians. Prayer was used frequently for common medical conditions, and users reported high levels of perceived helpfulness.

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IN ADDITION TO AMERICA'S FAITH in scientific modern medicine, national surveys suggest that many Americans believe in the healing power of prayer.¹⁻³ While there is no proven therapeutic efficacy of prayer,^{4,5} associations between spiritual beliefs and better health outcomes have been described.⁶⁻¹⁰ In light of these associations, the relationship between spirituality and health has generated interest in recent years.^{8,11,12} Investigating prayer's efficacy using scientific inquiry is controversial.¹³⁻¹⁶ However, prayer for health concerns may be an important phenomenon that should be understood by clinicians.

Using results from a nationally representative survey, we describe the prevalence of use of prayer for health concerns and factors associated with its use. We explore the relationship between prayer and common medical conditions, the perceived helpfulness of prayer when used for health concerns, and whether

patients discuss their use of prayer with their physicians.

METHODS

SUBJECTS

We collected data in a national household telephone survey using random-digit dialing on health problems, use of conventional medicine, use of prayer for health concerns, and use of 18 complementary and alternative medical (CAM) therapies among 2055 US households (60% weighted response rate).¹⁷ The CAM therapies included acupuncture, chiropractic, homeopathy, herbal treatments, megavitamins, special diet, lifestyle diet, relaxation, guided imagery, massage, energy therapy, folk remedies, self-help techniques, biofeedback, hypnosis, naturopathy, yoga, and aromatherapy. The interview was conducted by trained interviewers with 1 randomly selected English-speaking household resident 18 years or older per household.

Eligibility was limited to English speakers able to complete a telephone interview. The average time for administration was 30 minutes. A financial incentive of \$20 was provided to participants; a subset of eligible subjects who initially declined to participate was then offered \$50. The survey was conducted between October 1997 and February 1998. The specific question we asked about the use of prayer was "Have you ever used prayer or spiritual practice for your own health concerns?" We then asked about the use of prayer for medical conditions and its perceived helpfulness (scale: very helpful, somewhat helpful, not very helpful, and not helpful) and the use of prayer for wellness, defined as "the use of a therapy not to treat an illness but to prevent future illness and to maintain health and vitality."

Information was collected on respondents' sociodemographic characteristics including sex, religious affiliation (Christian non-Roman Catholic, Roman Catholic, Jewish, other, or none), education (up to high school or beyond high school), employment (unemployed or employed at least part-time), annual income (<\$20 000, \$20 000-\$50 000, >\$50 000 per year), race (white vs other), marital status, health insurance coverage, national region of residence (West, North Central, Northeast, South), and age at time of interview (18-33 years, 34-53 years, and ≥54 years). We grouped the ages into these 3 categories because previous studies have shown that members of these age cohorts use CAM therapies at particular rates: the lowest rate of use is among pre-baby boomers (respondents aged ≥54 years at interview, born in or before 1943); next highest is among baby boomers (those aged 34-53 years at interview, born 1944-1963); and highest CAM use occurs among post-baby boomers (those born 1964-1979).¹⁸

The characteristics of the subjects interviewed were similar to the population distributions published by the US Bureau of the Census.¹⁹ Specific characteristics, eligibility criteria, details of the weighting procedures, survey design, and general survey results are presented elsewhere.¹⁷ The Beth Israel Deaconess Committee on Clinical Investigations, Boston, Mass, approved the survey methods.

ANALYSES

We estimated the proportion of the adult US population that used prayer for health concerns in 1998 and use of prayer according to sociodemographic variables and common medical conditions. We examined the frequency of perceived helpfulness of both prayer and conventional medicine for common medical conditions. We calculated bivariable relationships between prayer for health concerns and sociodemographic variables, illnesses, and use of 18 CAM therapies. Using variables that were significant in bivariable analysis, we then fit multivariable logistic regression models with a backwards elimination algorithm. The dependent variable was use of prayer; independent variables significant at the $P < .05$ level in bivariable analysis included sex, age, religion, education, 14 common medical conditions, and 18 different CAM therapies. We constructed 2 models: model 1 combined sociodemographic variables and illnesses; model 2 combined sociodemographic variables and CAM therapies.

A total of 9 respondents were excluded for missing or unknown data (6 respondents had missing data on age and 3 respondents reported that they did not know if they used prayer). All analyses were performed using the SUDAAN statistical package with appropriate weighting variables.²⁰

RESULTS

Of the 2055 respondents, 741 (35% weighted) reported using prayer for health concerns in the last 12 months.

Table 1. Characteristics of Respondents*

Characteristic	Respondents	Respondents Who Use Prayer for Health
Total	100	35
Sex		
Female	52	41
Male	48	29
Age, y		
18-33	30	28
34-53	43	40
≥54	27	36
Religion		
Christian (non-Roman Catholic)	57	42
Roman Catholic	28	30
Jewish	3	9
Other†	2	38
No affiliation	8	10
Don't know or refused to answer	3	33
Education		
≤High school	51	32
>High school	49	39
Annual income, \$		
<20 000	25	38
20 000-50 000	42	35
>50 000	25	34
Don't know or refused to answer	7	33
Employment		
Unemployed	2	35
Employed at least part-time	98	35
Race		
White	77	34
Nonwhite‡	22	38
Don't know or refused to answer	1	59
Marital status		
Unmarried	55	37
Married	45	34
Health insurance		
Uninsured	15	34
Insured	85	35
US geographic region		
West	20	35
North central	23	34
Northeast	21	30
South	35	39

*Data are percentage of patients.

†Other includes Muslim, Buddhist, Hindu, pagan, agnostic, and other.

‡Nonwhite includes African American (black), Asian, Native American, and other.

Using Census Bureau data, we found that these numbers correspond to approximately 62 million users of prayer in the United States in 1998. Sociodemographic characteristics of prayer users are listed in **Table 1**.

Rates of prayer and conventional medicine use for 14 common medical conditions are summarized in **Table 2**. Users of prayer reported high levels of perceived helpfulness for most medical conditions. In addition to the use of prayer for these common conditions, we found that prayer was used by 75% of users for wellness (to prevent future illness and to maintain health and vitality). Overall, 72% of those using prayer for any health concerns were simultaneously using conventional medicine. However, the percentage of respondents using both prayer and conventional medicine var-

Table 2. Use of Prayer for Common Medical Conditions Over 12 Months*

Condition	No. of Subjects†	Used Prayer	Found Prayer Very Helpful‡	Saw Physician§ for Condition	Found Physician§ Very Helpful‡
Psychiatric conditions					
Severe depression	181	35	68	14	48
Anxiety	215	32	70	9	38
Psychiatric overall	299	35	72	10	45
Pain syndromes					
Arthritis	449	18	60	46	40
Back and/or neck pain	669	18	59	40	30
Chronic pain	172	21	48	65	34
Headache	340	22	46	43	38
Pain syndromes overall	1050	20	62	45	41
Chronic conditions					
Allergies	598	9	60	37	52
Diabetes mellitus	109	27	66	89	68
Digestive problems	296	20	53	45	45
Heart problems	193	21	50	74	62
Kidney problems	96	20	82	79	76
Lung problems	298	15	51	61	66
Neurological problems	40	29	30	66	42
Chronic conditions overall	1011	16	63	52	64
Cancer	27	34	81	91	78
Total conditions listed	1440	22	69	57	60

*Unless otherwise noted, data are percentage of subjects.

†Weighted.

‡Scale: very helpful, somewhat helpful, not very helpful, and not helpful.

§Medical doctor; for mental health this includes psychiatrists and other mental health professionals.

Table 3. Multivariable Analysis of Factors Associated With the Use of Prayer

Variable	Adjusted Odds Ratio (95% Confidence Interval)
Age in years, 1997	
18-33 (post-baby boom)	Reference group
34-53 (baby boom)	1.6 (1.3-2.1)
>54 (pre-baby boom)	1.5 (1.1-2.0)
Female sex	1.4 (1.1-1.7)
Religion	
Christian non-Roman Catholic	Reference group
Roman Catholic	0.6 (0.5-0.8)
Jewish	0.1 (0.1-0.3)
Other	0.9 (0.5-1.6)
None	0.1 (0.1-0.3)
Don't know or refused to answer	0.7 (0.4-1.6)
Education	
≤High school	Reference group
>High school	1.5 (1.2-1.8)
Medical conditions	
Depression	1.8 (1.2-2.8)
Headaches	1.5 (1.1-2.0)
Back and/or neck pain	1.4 (1.1-1.8)
Digestive problems	1.4 (1.1-2.0)
Allergies	1.4 (1.1-1.8)

11% of respondents who used prayer for health concerns discussed using prayer with their physicians.

Table 3 lists results from multivariable analysis of factors independently associated with increased use of prayer. Women, respondents with an education beyond high school, and both baby boomers (born 1944-1963) and pre-baby boomers (born before 1944) more commonly used prayer for health concerns. Roman Catholic and Jewish respondents, as well as those with no religious affiliation, prayed less commonly for health concerns than Christian non-Roman Catholic respondents. Respondents with depression, headaches, back and/or neck pain, gastrointestinal problems, and allergies prayed more often for their health concerns than those without these conditions.

In a model adjusting for age, sex, and religion, the following CAM therapies were associated with increased use of prayer for health concerns: herbal medicine (odds ratio [OR], 2.7; 95% confidence interval [CI] 1.9-3.8), relaxation techniques (OR, 2.3; 95% CI, 1.7-3.1), guided imagery (OR, 1.9; 95% CI, 1.2-3.3), self-help techniques (OR, 1.8; 95% CI, 1.2-2.7), folk remedies (OR, 1.7; 95% CI, 1.1-2.6), energy therapy (OR, 1.8; 95% CI, 1.1-3.0), and chiropractic (OR, 1.3; 95% CI, 1.0-1.7).

COMMENT

ied widely by condition. Only 10% of respondents using prayer for psychiatric conditions were also seeing a physician or mental health provider in the same 12-month period, while 71% of those using prayer for chronic conditions and 74% of those using prayer for cancer were also seeing a physician in the same 12-month period. Only

We found that a third of US adults surveyed used prayer for health concerns. Prayer was used for specific medical conditions but was used most often to promote wellness. Use of prayer was associated with illnesses characterized by painful or aggravating symptoms, nonspecific

diagnoses, and limited treatment options such as depression, headaches, back and/or neck pain, digestive problems, and allergies. Respondents who used prayer for their health concerns generally reported high levels of perceived helpfulness. Most often respondents used prayer in combination with conventional medicine but did not discuss the use of prayer with their physicians.

Our findings of the high prevalence of prayer for health concerns are consistent with previous studies. Levin and Taylor²¹ studied 1481 adults and found that 70% of the respondents prayed at least once a week, that women prayed more frequently than men, and that older adults prayed more frequently than younger adults. However, the researchers did not specifically ask about the use of prayer for health concerns. Dunn and Horgas²² found that of 50 community-dwelling elders (mean age, 74 years; age range, 64-85 years), 84% used prayer as a form of complementary healing treatment; women prayed more often than men; and the prevalence of prayer did not differ by level of education or religious affiliation.

There may be diverse reasons why prayer is so commonly used for health concerns. Previous research suggests that older people often rely on religion to help cope with stressful life events, including health issues.²³ Religion, and by extrapolation prayer, may help people understand the meaning of events, especially those that are painful, troubling, or unexpected.²⁴ Prayer and spirituality may improve quality of life by enhancing a persons' subjective well-being by providing coping strategies, stress relief, and social support.²⁵

Our findings on the high prevalence of the use of prayer for health concerns and the low frequency of discussion with physicians raise a question about the importance of discussing spirituality with patients. A recent study by MacLean et al²⁶ showed that 33% of people would welcome a discussion of their spiritual beliefs in a regular office visit, and 70% would welcome this discussion in an end-of-life setting.²⁶ Some authors have suggested the use of spiritual assessment tools²⁷⁻²⁹ and have suggested that spiritual histories should be taken in a way that does not endorse a specific religion or worldview but rather sends the message that spirituality may be important. If the patient is not religious, does not pray, or does not want physician involvement in this realm, follow-up questions might ask about other things that help the patient cope and give their life meaning.^{29,30}

The limitations of our study must be acknowledged. Our data were collected in 1998, and the rates of prayer use may have changed since that time. Since we restricted our sample to people who speak English and have telephones, we are unable to generalize the results to other populations. We relied on respondents' description of their medical conditions and lacked independent confirmation. The larger goal of the survey was to collect a range of data on a number of CAM therapies, and survey questions did not allow us to probe more deeply into the use of prayer. For example, we did not obtain information on respondents' extent of involvement in their religious communities, the perceived importance of their spiritual practice with regard to their medical management, the frequency of prayer, or ex-

actly how they prayed. Finally, we also do not know in what way prayer was perceived as helpful. Possibly, prayer helps one cope by facilitating acceptance of illness or by counteracting the feelings of isolation that might accompany severe illness.

In summary, we found that prayer for health concerns is a highly prevalent practice. Prayer is most often directed toward wellness and used in conjunction with conventional medical care. People who use prayer for health concerns report high levels of perceived helpfulness but rarely discuss their use of prayer with their physicians. Physicians should consider exploring their patients' spiritual practice to enhance their understanding of their patients' response to illness and health.

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