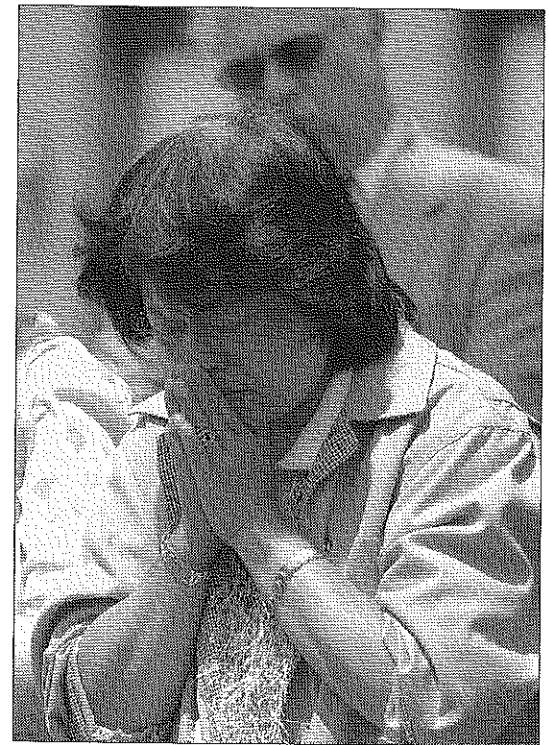


Prayer and Healing

Can spirituality influence health?

Among the myriad forms of alternative medicine being practiced in the United States, prayer is by far the most popular. More than half of American adults have prayed for better health, and a quarter have participated in prayer groups. Some doctors say that's reason enough to ask patients about their spiritual beliefs, because understanding those beliefs is essential to treating the whole person. But critics argue that probing into personal beliefs is intrusive. However, a majority of the nation's 135 medical schools now teach about spirituality, and many hospitals ask patients about it. Helping to drive this interest is the claim that religion improves your health. But scientific consensus has been reached on only one finding: Regular churchgoers live longer — and that may be because they're healthier than the homebound to start with. Far more controversial are studies claiming that patients heal faster when strangers pray for them. Many experts fault the studies; others say it's impossible to test God with science.



A woman prays during a National Prayer Day event in Vernon, Conn., on May 6, 2004.

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Cover: A woman prays during a National Prayer Day event in Vernon, Conn., on May 6, 2004. (AP Photo/Journal Inquirer/Irena Pastorello)

Prayer and Healing

BY SARAH GLAZER

THE ISSUES

Alternatives to traditional medicine are becoming increasingly mainstream in the United States. But despite their growing popularity, herbs, massage, homeopathy and other techniques — both ancient and New Age — are not the most widely used forms of alternative medicine.

The most popular form — by far — is prayer. In fact, according to a recently released national survey by the Department of Health and Human Services, 55 percent of Americans say they have prayed to heal themselves or others.¹

More than 35,000 online prayer circles are registered on the popular interfaith Web site Beliefnet, three-quarters of them focused on improving someone's health.² Indeed, almost a quarter of all Americans say they have participated in such prayer groups, including those who signed up online recently to pray for former President Bill Clinton's speedy recovery from bypass surgery.³ And many mainstream churches now offer "healing prayer" opportunities during services, in which laypersons place their hands on the heads and shoulders of sick congregants while praying for them.

But should prayer become a weapon in physicians' arsenal against illness? And is there any evidence that prayer actually heals the sick?

In recent years, several openly religious doctors and researchers have recommended that doctors ask patients about their spiritual beliefs, on the grounds that some studies show religious people are healthier. Some even make a practice of praying with their



AP Photo/L.M. Otero

Church missionaries from Carrollton, Texas, pray for Maria Jesus Onterverros' bad back in Ciudad Juarez, Mexico. Many studies have tested the healing power of prayer, but scientific consensus has been reached on only one finding: Regular churchgoers live longer than the homebound. Far more controversial are studies claiming that patients heal faster when prayed for by strangers.

patients. Dale Matthews, a professor of medicine at Georgetown University, recommends that doctors encourage religious patients "to pray more" to enhance recovery from illness.⁴

Bringing up religion in the doctor's office is extremely controversial. According to one survey, while a majority of doctors think they should be aware of their patients' spiritual outlook, less than a third think they should bring it up in the patient interview.⁵ Doctors express concern that doing so could be viewed as coercive or intrusive by patients or even an attempt at conversion. Equally controversial is one of the principal claims of prayer advocates: That science has proven that religious practice and prayer are good for your health.

In fact, research seeking a connection between the spirit and the flesh has produced mixed results. The only persuasive indication of a link, accord-

ing to a federally sponsored review, is found in studies showing that regular churchgoers live longer on average than non-worshippers.⁶

But studies testing the far more explosive question of whether a stranger's prayers can cure a person thousands of miles away have raised more questions than answers. Many skeptics call such studies a waste of time, arguing that the phenomenon can't be studied using the scientific method.

Three published studies have tested the effect of remote, intercessory prayer on heart patients. Two concluded that the prayed-for group did better than a control group that was not prayed for; one found no difference. But the researchers who claimed benefits for prayer may have been successful simply because they tested so many health mea-

asures that some proved superior by random chance, says Richard P. Sloan, a leading critic of the studies and a professor of behavioral medicine at Columbia University's College of Physicians and Surgeons.

"The intercessory prayer literature is just terrible, and there's no basis for claims that intercessory prayer works," Sloan says.

"There is no consensus about how prayer might work at a distance to achieve effects on the other side of the Earth," concedes Larry Dossey, a non-practicing Sante Fe, N.M., internist who is executive editor of the *Journal of Science and Healing* and author of several popular books on prayer and healing. Nevertheless, in his view, "The research data strongly suggest there is a positive effect." Intercessory prayer is "where the greatest mysteries lie but also where the greatest payoff lies," he says.

"Scientifically, there's no way to study prayer as an isolated phenomenon,"

Prayer Is Most Popular Alternative Technique

More than half of all Americans age 18 and over say they have prayed for their own or someone else's health. Prayer is by far the most popular form of complementary and alternative medicine (CAM), which is used by three-quarters of Americans.

Forms of complementary and alternative medicine (CAM) used by Americans, 2002

Any CAM Use	74.6%
Prayer for health reasons	55.3
Natural products (nonvitamin, nonmineral)	25.0
Chiropractic care	19.9
Deep-breathing exercises	14.6
Meditation	10.2
Massage	9.3
Yoga	7.5
Diet-based therapies	6.8
Acupuncture	4.0
Homeopathic treatment	3.6
Hypnosis	1.8

Source: "Complementary and Alternative Medicine Use Among Adults: United States, 2002," *Vital Health Statistics, Health and Human Services Department*, May 27, 2004

says Margaret Mohrmann, a pediatrician who teaches religious ethics and medicine at the University of Virginia. "It's absurd to submit the question of the existence of God to a scientific test."

Religious thinkers also have criticized the studies on intercessory prayer. "It borders on blasphemy to subject God to a scientific test that puts science above God," says Daniel Sulmasy, a Franciscan friar and professor of ethics and medicine at the New York Medical College, Valhalla, N.Y.

Other critics say it may be possible to test prayer but that the studies so far have been poorly designed. Researchers remain sharply divided on what the research actually shows, often influenced by whether they believe in prayer to begin with.

"It's rock solid — those of us attending church, mosque and temple are living longer lives," says Michael E. McCullough, associate professor in psychology and religious studies at the University of Miami, Coral Gables. McCullough, who completed a meta-analysis of 42 studies confirming the link, estimates regular religious attendance confers an extra five to seven years of life — and up to 14 years for African-American men.⁷

But Sloan says the studies often failed to find out whether church attendees started out healthier. "Only those who were healthy enough to begin with were able to get to church," he points out. Non-worshippers or irregular attendees "couldn't go because

they were already too sick and at much greater risk of dying."

If the link exists, experts suggest, it may be that people who attend church find the kind of psychological boost often found in support groups, which most medical experts agree are beneficial. It's now widely accepted that stress, anger and depression can induce or exacerbate serious medical conditions like heart disease.

Herbert Benson, president of the Mind/Body Medical Institute in Chestnut Hill, Mass., and an associate professor of medicine at Harvard Medical School, is an expert on the physical benefits of meditation. He suggests that praying — repeating phrases, words or motions — produces beneficial, stress-reducing physiological effects, such as lowered blood pressure, like those produced by meditation.

Indeed, spirituality advocates already have made considerable inroads in medical education. A decade ago, only a handful of the 135 American medical schools offered courses on spirituality and healing. Today 101 medical schools devote at least a portion of some courses to the topic, according to Christina M. Puchalski, director of the George Washington Institute for Spirituality and Health and associate professor of medicine at George Washington University School of Medicine, in Washington, D.C.

"The focus of teaching the courses is rooted in our ethical obligation as physicians and nurses to be attentive to the suffering our patients encounter and to be compassionate; that's why I think they should be taught," says Puchalski, who developed one of the first such courses in 1992 and sees the spiritual component as part of the medical trend toward treating patients holistically.

Most patients consider spirituality essential to their health, Puchalski and other doctors argue, citing surveys showing that most Americans are religious and that many patients believe physicians should consider their spiritual needs.⁸

Puchalski advocates that doctors take a "spiritual history" of their patients along with a medical history, another controversial practice that she says many hospitals have incorporated into their admission forms. Doctors — who tend to be less religious than Americans in general — neglect an important aspect of their patients' healing process when they don't discuss it, advocates like Puchalski maintain.

Hardly anyone argues against the notion that a patient's belief in a loving Being can arouse the kind of hope and associated physiological forces that may help them endure and even recover from some illnesses. But there's a negative side to religious belief, too. One reminder is the unnecessary deaths of children whose parents have withheld medical treatment in favor of prayer. Religious prohibitions, like the Jehovah's Witnesses' prohibition on blood transfusions or organ transplants, may bar doctors from giving life-saving treatment; or a family's belief in a religious miracle may force a doctor to continue extreme medical procedures long after it can help a dying patient.

And sometimes it's impossible to distinguish between the culturally acceptable voice of God that people of faith claim to hear and a voice produced by insanity, as author Jon Krakauer so chillingly documented in his 2003 account of two devout Mormon brothers who murdered a young mother and her child because, they said, they'd received a direct order from God.⁹

That complexity leads some critics to question whether doctors have the training or the right to involve themselves in spiritual matters. "A doctor is a scientist primarily; to start mixing in religion is a mistake," says the Rev. Raymond J. Lawrence, director of pastoral care at New York-Presbyterian Hospital.

"Religion is a big, complicated subject," he concludes. "This [mistaken] notion that everything religion does is positive underlies a lot of this."

Blacks, Women and Seniors Pray for Health Most

Higher percentages of women, older adults and African-Americans pray for better health than any other groups of Americans, according to a recent study.

Percentage of adults who prayed for better health during the last 12 months

Gender	Male	30.9%
	Female	40.0
Age	18-29	26.5
	30-39	31.5
	40-49	34.4
	50-59	36.5
	60-69	41.9
	70-84	53.9
	85 and older	59.6
Race	White	33.1
	Black	53.6
	Asian	27.2
	Hispanic	44.2
Hospitalized in last year	Yes	50.9
	No	34.1
Total		35.7%

Source: "Complementary and Alternative Medicine Use Among Adults: United States, 2002," *Vital Health Statistics, Health and Human Services Department*, May 27, 2004

Whether or not there is a link between praying and healing, a doctor who systematically introduces the subject of prayer is intruding on a patient's privacy, say some physicians and chaplains, and doctors have little time or training to engage patients in a meaningful way — especially if they are of a different religion.

Some advocates argue that doctors should briefly screen patients on their spiritual beliefs because some religious tenets, such as bans on blood transfusions, may be critical for the doctor to know in reaching agreement with patients on their medical treatment. Moreover, practical questions, such as whether a patient can rely on a congregation

to bring meals and provide support, are often crucial in planning a patient's recovery, some doctors say.

If patients are suffering over a serious spiritual question — such as the belief that their illness is a punishment from God for their sins — the patients should be referred to a chaplain or pastor for more extensive counseling, advocates increasingly advise.

As researchers continue to seek links between prayer and healing, here are some of the questions being debated by doctors, scholars and clergy:

Does prayer influence healing?

Researchers' answers to the question have often depended on whether or

PRAYER AND HEALING

Prayer and Healing Studies Are Mostly Unreliable

Most studies on whether prayer and religion can improve health are based on insufficient evidence, according to a recent evaluation of 150 studies. While evidence was found to be persuasive that people who go to church are healthier than non-churchgoers, evidence that religion hinders recovery from illness was found more credible than studies showing that religion improves recovery.

Hypothesis of study	Strength of evidence
Churchgoers are healthier than non-churchgoers	Persuasive
Religion or spirituality protects against cardiovascular disease	Somewhat persuasive
Being prayed for improves physical recovery from acute illness	Somewhat persuasive
Religion or spirituality protects against cancer mortality	Inadequate
Religion or spirituality protects against disability	Inadequate
People who use religion to cope with difficulties live longer	Inadequate
Deeply religious people are protected against death	Consistent failures
Religion or spirituality slows the progression of cancer	Consistent failures
Religion or spirituality impedes recovery from acute illness	Somewhat persuasive
Religion or spirituality improves recovery from acute illness	Consistent failures

Source: Lynda Powell, et al., "Religion and Spirituality: Linkages to Physical Health," *American Psychologist*, January 2003

not they view the world from a religious perspective. To help resolve the question, the National Institutes of Health (NIH) commissioned a group of experts to review about 150 studies on prayer and healing. In their 2003 report, the reviewers were not persuaded by studies that claimed being prayed for improves recovery from acute illness or that spirituality protects against cancer. After eliminating poorly conducted studies, they found only one hypothesis persuasive: People who attend religious services regularly live 25-30 percent longer than non-churchgoers.¹⁰

Harold G. Koenig, co-director of Duke University's Center for Spirituality, Theology and Health, believes religious people are healthier because they cope better with stress. He has conducted numerous studies concluding that regular religious practice, including Bible reading, can boost the immune system, lower blood pressure and reduce cardiovascular problems. Better coping, he says,

comes from "a positive world view that there's a loving God who has a plan for each person's life here on Earth and a plan for eternity." And that, he says, "translates into physical health benefits."

Critics of such research, like Columbia's Sloan, say the studies finding churchgoers live longer are the strongest of a weak lot, but even they are not "particularly persuasive." People capable of traveling to church every Sunday are probably healthier to start with, he says. Or they may have good health habits enforced by their religious culture such as bans against smoking, drinking or promiscuous sex. Religion is not necessarily the only way to produce that lifestyle or social support, Sloan says.

Koenig responds: "That's part of the mechanism by which religion has its effect — because of its laws and rules that guide human behavior. We physicians have been trying to get people to stop smoking forever, and we can't do it. It takes religion to do it."

Among the controversial studies of remote intercessory prayer — in which strangers pray for patients without their knowledge — the most reliable divide patients randomly into two groups: One is prayed for by strangers and one is not. Researchers then check to see if either group improves more. Several studies with this design claim to show that prayer works, but critics say they have serious methodological problems.

For example, two published studies of hospitalized heart patients have claimed that the prayed-for groups did better. In a study by cardiologist Randolph Byrd, patients at San Francisco General Hospital were assigned randomly either to standard care or prayer by born-again Christians. (Patients agreed to participate but did not know which group they were in.) The patients who were prayed for did better on several measures of health, including the need for drugs and breathing assistance.

However, these results are far less impressive than they first appear when one looks at the full range of health issues Byrd measured. Compared to the group that received conventional care, the prayer group suffered fewer newly diagnosed ailments on only six of the 29 health outcomes Byrd measured.¹¹

As a result, Sloan says, the study suffers from “the sharpshooter’s fallacy,” in which the researcher keeps testing health measures until he comes up with something significant — much like a cowboy who empties his gun on a barn wall and then draws a bulls-eye around some of the bullet holes. “They just collect variables until they’re blue in the face and look at them all to see if something happened,” he says. “Sooner or later, you’re going to find something [positive] by chance.”

A similar study by William S. Harris, director of the Lipid Research Laboratory at the Mid America Heart Institute of Saint Luke’s Health System in Saint Louis, Mo., reported that patients prayed for by strangers did significantly better on a score of coronary health that included some 34 factors.¹²

After the *Archives of Internal Medicine* published Harris’ article in 1999, the journal was deluged with letters criticizing his method, which rated patients on a complex, idiosyncratic scale devised for the study that assigned different weights to each of more than 30 health outcomes, based on their importance to coronary health. Several physicians disputed Harris’ weighting system, noting for example that a person who died would get a better score on his scale than one who



Dr. Christina M. Puchalski, director of the George Washington Institute for Spirituality and Health, advocates that doctors take a “spiritual history” of their patients along with a medical history. As an associate professor of medicine at George Washington University School of Medicine, she says concern about spirituality reflects the medical trend toward treating patients holistically.

George Washington Institute for Spirituality and Health

needed antibiotics, monitoring of the arteries and drugs to relieve angina.¹³

By contrast, studies of this kind normally use “standardized, validated scales” that are reproducible by other scientists, notes Sulmasy, of New York Medical College. Ironically, when Harris applied Byrd’s scale to his patients, he found no statistically significant difference between those who were prayed for and those who were not.¹⁴

Most significant, in the Harris study the prayed-for group was no better off in the two areas family members tend to care most about: the number of deaths and the length of the hospital stay. Harris responds that his study wasn’t large enough to test mortality rates reliably. He maintains “people care about a lot more than mortality: How they do; how they feel; insurance companies care about a lot more than whether people die or not.” He defends the scale he created: “The prayer was not for specific events; it was just for a better outcome.”

Another large study found that praying by local prayer groups had no effect on heart patients at the Mayo Clin-

ic in Rochester, Minn., when researchers took a straightforward look at individual results, such as deaths, rehospitalization and emergency visits for heart problems or cardiac arrest.¹⁵

Meanwhile, charges of possible data manipulation have been raised in two prayer studies — one comparing AIDS patients (see p. 44) and another focusing on women undergoing invitro fertilization. (See sidebar, p. 38.)

Given all the problems with the studies, fewer and fewer members of the medical community are willing to defend them.

In a recent interview, for example, Koenig called himself “the Richard Sloan of intercessory prayer studies” to emphasize his skepticism about them even though he has coauthored one of the largest such studies.

But there are some persistent believers, such as Santa Fe internist Dossey, who believes intercessory prayer suggests that, “Our thoughts and intentions are not restrained by space. They may also operate unrestrained by time as well.”

To those who find this explanation implausible, he responds: “Often in the mystery of science, we’ve known something works before we know how it does work. We still don’t know how general anesthetics work, but we don’t quit using them.”

John Astin, a health psychologist at California Pacific Medical Center, in San Francisco, who is studying distant healers’ effects on AIDS, says, “The jury is still out” on whether prayer affects healing. But he’s intrigued by the question. “Where is the boundary between your thoughts and feelings and my thoughts and feelings?” he asks. “Where does it

Continued on p. 33

Hospitals Promote Benefits of Meditation

Beth Israel Medical Center is among New York City's pre-eminent hospitals, a bastion of the traditional healing arts. But every Thursday at lunchtime, in the hospital's alternative-healing facility, a Buddhist monk leads a 25-minute meditation session for patients and staff.

"Let your thoughts wander in and out; let the noise wander in and out," the monk says, instructing a small group in the hospital's Continuum Center for Health and Healing to focus on their breathing as they sit with their eyes closed at a long table.

Meditation is one of several alternative-healing activities the center offers. Patients also have chanted to invoke spirits, guided by a Native American physician, and they can participate in reiki, which adherents describe as a form of "energy healing."

As more hospitals open alternative-healing centers, meditation and prayer are taking their place among such standard complementary therapies as aromatherapy, homeopathy and massage, according to Woodson Merrell, the center's director. "It's a very powerful way for people to help themselves," says Merrell, an internist. When it comes to his own patients, he most often recommends meditation, but he suggests prayer if the patient is religious.

"In a sense, we're going back to old-time medical practice, when physicians were interested in the whole person," Merrell observes, adding that medicine today is "too compartmentalized" into specific areas like diabetes or high blood pressure, and doctors in busy HMOs (health maintenance organizations) do not have time to ask if there is an emotional component to a patient's disease.

Herbert Benson, president of the Mind/Body Medical Institute in Chestnut Hill, Mass., conducted the first scientific studies of the benefits of meditation 30 years ago and published his findings in *The Relaxation Response*. The 1975 book taught readers how to reduce stress using meditative techniques similar to those espoused by devotees of Transcendental Meditation — meditative techniques introduced to the Western world by a Hindu guru in India named Maharishi Mahesh Yogi.

Benson argued that non-devotees could gain similar health benefits by merely sitting quietly with eyes closed for 15-20 minutes twice a day while silently repeating a word, sound or movement and passively ignoring thoughts, much as the Buddhist monk directs patients to ignore the noise around them and return to the rhythm of their breathing.

"The essence of the relaxation response is to break the train of everyday thought," abolishing stressful thoughts, explains Benson, an associate professor of medicine at Harvard University.

Benson says the relaxation response is the opposite of the "fight or flight" response triggered by stress, which releases adrenaline and noradrenaline hormones that increase metabolism, blood pressure and heart rate. By contrast, his studies show, those who meditate or use other methods like prayer to evoke the relaxation response experience a decrease in all these physiological processes — potentially reducing the incidence of heart attacks, high blood pressure, hot flashes, infertility or premenstrual syndrome.

The technique is not new, he says. "For millennia, people have been carrying out these techniques within a religious context," citing such repetitive practices as the mantra used in Hinduism, the repeated bowing in davenning (a Jewish form of praying), saying the Catholic rosary and praying five times a day by Muslims.

That may explain why Shoshana Silverman Belisle, a psychotherapist at the center, finds the Thursday meditation sessions so refreshing. "It's a clean break — like an eraser that wipes away all the nonsense," she says. "It helps to center myself."

Benson has trained thousands of doctors in the relaxation technique, and many now teach it to their patients. Yoga and tai chi — as well as knitting and jogging — can produce the same effect, he says. According to Benson, the relaxation technique is an essential part of medicine because neither drugs nor surgery can treat stress-related disorders effectively.

However, not everyone is convinced that meditation can necessarily fight disease. "It's good marketing," according to Richard P. Sloan, professor of behavioral medicine at Columbia University College of Physicians and Surgeons. "There's no doubt the relaxation response has an impact on the autonomic nervous system, but there's a question whether that translates into a health benefit or whether it's just ephemeral."¹

Benson is also fascinated by a meditation technique he saw practiced by Buddhist monks in India who visualize an internal fire to burn away the defilements of everyday thinking. While meditating, Benson says, the monks generated so much body heat that they were able to put icy, wet sheets on their naked bodies in freezing winter conditions for more than an hour, and the sheets began to steam.

"You and I would go into uncontrollable shivering and die" under such conditions, Benson says. "These studies show the mind-body power that we have to better understand."



Dr. Herbert Benson conducted the first scientific studies of the benefits of meditation 30 years ago.

Mind/Body Medical Institute

¹ Jane Brody, et al., *The New York Times Guide to Alternative Health* (2001), p. 216.

Continued from p. 31

end — the outer layer of epidermis? If you look at the body as energy — not matter — maybe there's a possibility we as human beings are more connected to one another than we realize."

Chaplains and other religious thinkers have theological problems with intercessory-prayer studies. How do you control for the fact that even the unprayed-for group may have family, friends and strangers praying for them? How do you know which prayers God pays attention to? How do you measure if more or less praying affects the response?

University of Virginia pediatrician Mohrmann, who describes herself as a believer in God, objects: "Having a study that purports to show that prayer has no effect should not change a believer's idea of the effectiveness of prayer. It's a religious belief not a scientific belief."

The Rev. Lawrence, at New York-Presbyterian Hospital, argues that recent studies have inflated the importance of intercessory prayer, which is only one of many kinds of prayer — including prayers for thanksgiving and forgiveness. "It's really incredible anyone would think they could research results of sending communications to God," he says. "If there is a God listening to prayer, the prayer of a hateful person probably would be ignored and the prayer of a faithful person would be favored. How would you ever figure out the effectiveness when you can't test the other correspondent?"

Some theological thinkers say such studies verge on blasphemy. "As a deeply believing person, I have a lot of trouble from a moral point of view setting up a study in which I randomize people not to be prayed for," objects Sulmasy. "If you really are a believer, is it moral not to pray for people for scientific reasons? It seems to me to violate the tenets of most religions." And for some theologians, it's hard to imagine an omniscient, all-powerful,

loving Creator turning his back on someone just because a researcher has placed him in a control group.

"From a theological view, it's fairly backward to say we'll reduce God to a therapeutic nostrum equivalent to a medication," Sulmasy adds.

Ronald M. Green, professor of religion and director of the Ethics Institute at Dartmouth College, notes that the effectiveness of prayer is "one of the tenets of the evangelicals," which may explain both the motivation behind some of the studies and the persistent belief in them. The divide between people who believe such studies and people who don't, he says, "reflects some of the divisions in our country" over faith and, as such, may be unbridgeable.¹⁶

Can psychological/emotional factors account for links between religion and health?

The medical community widely agrees that moods and emotions can significantly influence health. Depression, hostility, anxiety and stress have all been found to be risk factors for heart disease. For example, researchers writing in the journal *Circulation* in 1995 found people who had symptoms of depression following a heart attack had a sixfold increased risk of death.¹⁷ People who experienced hopelessness had a more than threefold increased risk for high blood pressure, according to a 1997 study.¹⁸ Conditions like arthritis, pain and pre-menstrual syndrome can also be exacerbated by stress and depression. For example a study published in the *Journal of Rheumatology* reported that a patient's level of depression was a better predictor of his pain and disability than the extent of knee damage.¹⁹ At least 60 percent of visits to doctors are for stress-related ailments, according to Harvard's Benson.

Could people who regularly attend religious services be living longer because they suffer less stress, anxiety and depression? According to a meta-analy-

sis of 147 studies of predominantly Christian congregations in North America, religious people tend to have fewer symptoms of depression.²⁰ (The authors describe this association as small, or about the same magnitude as the tendency of women to be more prone to depression than men.)

"We don't know if they're doing better because of the social support [offered by their congregations] or their religious beliefs," says the study's lead author, Timothy B. Smith, associate professor of counseling psychology at Brigham Young University, in Provo, Utah. It may also be that religious people are less likely to abuse drugs and more likely to be married, with stable family relationships — lifestyles associated with better health. And regular worshippers may be more optimistic or have mechanisms for coping with difficulty, such as praying or talking to a pastoral leader, Smith says.

Everett Worthington, a professor of psychology at Virginia Commonwealth University, in Richmond, Va., says the state of "unforgiveness" produces the kinds of anger, stress and hostility that negatively impact the heart and immune system.²¹ "It could be that people who are more religious are more forgiving, and that ends up being part of the reason religion has a positive health impact," he says.

Mohrmann of the University of Virginia believes studies linking regular church attendance to longer life can probably be explained by the social support offered by congregations. "I'm a believer [in God], but this research doesn't tell us anything about the healing power of particular beliefs or practices," she says. "It's telling us that human beings thrive in situations of community and mutual support and focus."

Social support can positively affect individual health, Sloan agrees, but adds that there are many ways to obtain social support that have nothing to do with religion. "If you want to

PRAYER AND HEALING

encourage social support, by all means do so, but it doesn't have to be religious, because some people may find that coercive. You could recommend patients join a club, the PTA, or do volunteer work at a community center."

Others suggest that any kind of pleasurable activity, physical or mental, might improve health. Even gardening for an hour a week has been found beneficial in avoiding cardiac arrest. For strict denominations, the weekly day of rest on the Sabbath could have similar beneficial effects.

On the other hand, those who think there is something special about religious communities say it's hard to find a secular group with the built-in care-giving of a church or synagogue congregation. "Going to Denny's on a Saturday night is not going to give the kind of social support with a large number of people who know you and are concerned about your well-being in a global way," the University of Miami's McCullough asserts. "When there are ruts in the road," he says, being part of a house of worship makes it easier for fellow congregants to care for someone who is sick.

McCullough says religious patients receive another bonus — the sense that they are being supported not just by other people but also by God. "This is hard to substitute," he says.

Enthusiasts like Duke's Koenig claim that regular religious practice, including Bible reading, can boost the immune system, lower blood pressure and reduce cardiovascular complications. One of his studies found that regular church association is linked to lower levels of interleukin-6, a marker associated with weakened immune systems, heart disease and aging.²²

However, the NIH review panel concluded, "The findings are somewhat mixed and provide relatively weak support for the hypothesis that greater religious involvement is associated with better immune function."²³

Indeed, there is a "paucity" of good research linking Judeo-Christian religious practices to such health effects as lower blood pressure, according to the panel. A much larger and stronger body of research links Eastern religious practices, like meditation, to good health. For instance, meditation or relaxation techniques have been shown to help lower blood pressure, and there is "reasonable" evidence, according to the reviewers, that meditation and activities like yoga help lower cholesterol and stress hormone levels and produce different patterns of brain activity that seem to indicate a quieted mind.²⁴

Harvard's Benson believes prayer is one form of what he calls the relaxation response — a repetitive experience like saying the Rosary that permits people to clear their minds and reduce stress. He suggests churchgoers may be in better health because praying — like meditation, yoga, tai chi or knitting — physiologically reduces stress. (See sidebar, p. 32.)

However, Ken Pargament, a psychology professor at Ohio's Bowling Green State University, sees a big difference between a prayer and a secular mantra — a repeated word or sound. Pargament has found, for instance, that people who focus on spiritual content while meditating had lower anxiety levels than those who meditate on something secular.

The spiritual dimension of prayer adds "something special," he says, especially when people are sick and physically isolated. "Religion and spirituality offer people ways of coming to terms with human limitations: We're finite; we will die." In addition, religious leaders are more likely to talk about surrender, forgiveness and letting go, while "Much of psychology [and America's self-help culture] is about maximizing choices, getting control."

"Religion affects health by affecting people's psychological, emotional factors, their social support and their health behaviors," Koenig says. "That's how religion does it. That doesn't dismiss

religion; the active ingredients are the psychological, social and behavioral."

But Columbia University's Sloan thinks Koenig and his adherents are jumping the gun in claiming even these benefits. "The evidence doesn't suggest any solid connection between religious attendance and health outcomes," Sloan insists, "so it's specious to consider a mechanism when there's no evidence that there's an effect."

Should doctors endorse or discuss spirituality with their patients?

Pointing to research linking faith and health, some prominent physicians are urging doctors to take their patients' spiritual histories, just like they take a medical history.

Duke's Koenig argues that for health reasons, doctors should "support the religious beliefs patients have" and also find out if they're having a religious crisis.

"When people get stuck in spiritual struggles, they die sooner," he says, citing a study he coauthored at Duke, which found that hospital patients who believed God was punishing them or had abandoned them experienced 19-28 percent greater mortality during the two years following their discharge.²⁵ "So the spiritual struggle is something health-care professionals need to identify because it can affect their patients' health."

George Washington University physician Puchalski's four-question spiritual history for clinicians asks such questions, as: "Do you consider yourself spiritual or religious?" and "How would you like me . . . to address these issues in your health care?" (See box, p. 35.)

"At medical school," Puchalski says, "I was stunned that there was very little about human suffering or how people cope with illness."

Part of treating patients holistically, she argues, is to connect with their spiritual center. However, many of the spiritual-history questionnaires designed for doctors view spirituality in narrowly

traditional religious terms, Mohrmann complains. "It's equally important to find out from someone that what they're really missing in their illness is not being able to do their gardening, which is where they always found their peace."

But critic Sloan says that even non-denominational questions like, "What gives your life meaning?" are "absurd" for doctors to be asking, and they intrude into patients' privacy. He thinks religious questions should be referred to hospital chaplains or outside clergy. "What suggests physicians are capable of being spiritual guides to the mysteries of the universe?" he asks.

Advocates of spiritual histories respond that not only are most Americans religious but also, according to some surveys, a high percentage of patients believe physicians should consider their spiritual needs.²⁶ These surveys have generally been taken in family practices, however, where patients tend to know their doctors well. Some surveys of hospitalized patients have found a larger proportion want no discussion of such matters.²⁷

Other surveys suggest that doctors, by contrast, are generally reluctant to raise the issue. A study of 476 physicians reported that 85 percent agreed they should be aware of patients' religious or spiritual beliefs, but only 31 percent said a physician should ask about these beliefs during a routine office visit.²⁸

Critics argue that questions about religion may make some patients intensely uncomfortable, particularly ones who do not share the doctor's religion. For example, a Washington, D.C.-area woman recently described a visit to a gastroenterologist who kept a statue of the Virgin Mary on his desk. When he asked for her medical history, she decided not to tell him she had had an abortion for fear his disapproval might lead him to lecture her or give her lower-quality care.

Just because questions about private religious practice make some patients

Taking Patients' Spiritual History

Some hospitals have adopted a questionnaire to help health-care professionals take a patient's spiritual history. Christina Puchalski, founder and director of the George Washington Institute for Spirituality and Health, developed the so-called FICA quiz — for faith, importance, community and address. It asks the following:

Faith and Belief — "Do you consider yourself spiritual or religious?" or "Do you have spiritual beliefs that help you cope with stress?" If the patient responds "No," the physician might ask, "What gives your life meaning?" Sometimes patients respond with answers such as family, career or nature.

Importance — "What importance does your faith or belief have in your life? Have your beliefs influenced how you take care of yourself in this illness? What role do your beliefs play in regaining your health?"

Community — "Are you part of a spiritual or religious community? Is this of support to you? How? Is there a group of people you really love or who are important to you?" Communities such as churches, temples and mosques, or a group of like-minded friends can serve as strong support systems for some patients.

Address in Care — "How would you like me, your health-care provider, to address these issues in your health care?"

Source: C. M. Puchalski and A. L. Romer, "Taking a spiritual history allows clinicians to understand patients more fully," Journal of Palliative Medicine, 2000

uncomfortable is no reason to avoid asking them, responds Duke's Koenig, noting that doctors ask embarrassing questions all the time. "We make the patient feel uncomfortable asking about the details of their sexual orientation, their sexual practices, private activities like smoking and drinking. Why do we intrude on people's lives? Because they come to us for help, and we know these factors are linked to health."

But even if it were proven that religion is good for you, it's not clear that it can be handed out like medication. "If the evidence were really solid, would you be justified as a physician to recommend that a patient attend religious services?" asks Sloan. "Would the impact be the same if a physician tells you to go?"

Married people tend to be healthier than single people, he points out, but physicians don't tell their patients to get married. Some studies have found that early childbearing may reduce the risk of cancer, he has observed, "but we would recoil at a physician's recommendation that a young woman . . . have a child to reduce her risk of cancer."²⁹

Even more contentious is the question of whether it's appropriate for doctors to pray with patients. A patient who isn't religious but believes the doctor holds her life in his hands may feel cornered if a doctor insists on praying with her. One surgeon told pediatrician Mohrmann that he always prayed with his patients the night before surgery, and that his patients always thanked him.

"The only thing I could think was, 'If you were going to cut me the next day, I would say thank you, too,'" Mohrmann says. "It's coercive in that setting, where the physician has all the power. This is the person who's going to make the difference in whether you live or die."

It's not clear how many doctors pray with their patients, but a recent, national, unpublished survey of 2,000 doctors found that the more religious the doctors, the more likely they were to pray with the patient or discuss religious issues.³⁰

The survey's author, Farr Curlin, a University of Chicago internist who was raised as an evangelical Christian, says he often prays with patients but usually waits to get a cue. "It has generally been in settings where the patient made clear they share the religious tradition I'm from — Christian — and are hoping God will help them," he says. "In my experience, the patient may ask me to pray for her, or I ask, 'Would you like for us to pray?' In my experience, my patients seemed uniformly delighted we have that opportunity."

But the Rev. Lawrence at New York-Presbyterian Hospital, says doctors who pray with patients are making a big mistake. "Is he going to pray with Muslims, Jews and atheists, too? Let's say he prays with all his patients but doesn't pray with some Hindu, and the Hindu dies. Does that subject him to a malpractice suit?"

Doctors have neither the time nor the training to deal with the flood of emotions and conflicts they are likely to unleash by asking highly personal questions about belief, he adds. "People may be sick with a broken leg; they're lying in bed, you go visit them and they start trusting you and the next thing you know they're telling you they're in love with their boss, they've had an affair and should they tell their husband and get a divorce?"

Some religious thinkers are offended on theological grounds at the idea that prayer would become a routine part of medical treatment. Religion employed in the service of health "invariably tends to become idolatry," with health valued as a "false god," in a narcissistic effort to avoid the inevitable, say two professors of theology, Joel James Shuman and Keith G. Meador, in their 2003 book, *Heal Thyself: Spirituality, Medicine and the Distortion of Christianity*.

The assumption "is that God is like some bearded gentleman up in the clouds that's got his ear cocked waiting to see how many people are going to pray and gives special attention to people who have a lot of prayers coming up," concurs Lawrence. "That's a very childlike and primitive notion of who God is."

But doctors and nurses who deal with terminally ill patients often find themselves confronting patients' spiritual crises whether they like it or not, since this is often when questions about an afterlife and the existence of God become most pressing. In a study of 100 patients with newly diagnosed advanced lung cancer, patients ranked faith in God just beneath their oncologists' recommendations as the most important factors in their decision about treatment.³¹

At a symposium at Columbia University Medical Center in New York City in December 2004, hospital staff invited a rabbi and a Catholic lay expert to answer their questions about specific cases. One involved a 44-year-old breast cancer patient who had turned to reiki, a New Age approach to healing that sometimes promises miracle cures. "What's the role for the health-care professional here?" a hospital staffer asked the religious experts.

The New York Medical College's Sulmasy, who helped organize the symposium, says he routinely asks patients if religion plays a role in their lives and if not, what aspects of their per-

sonal philosophy are important to them. "My notion of reintroducing spirituality has nothing to do with the data," he says, "It has everything to do with recognizing the deep spiritual questions illness raises and the insult to patients in ignoring it."

Recently some proponents have answered critics by saying that the doctor's job is simply to screen the patient for spiritual issues that might affect their health care. For spiritual direction or in-depth discussion, Koenig advises, the doctor should refer the patient to the hospital chaplain or local clergy, much as a family physician refers patients with heart problems to a cardiologist.³²

BACKGROUND

Early Healers

Throughout history, and in the developing world today, little distinction has been made between spiritual and physical healers. As Harvard's Benson points out in his 1996 book *Timeless Healing: The Power and Biology of Belief*, before the advent of science even Western doctors had to rely on the placebo effect — the patients' belief that the doctor's treatment would make them well — or on the chance possibility that the illness would get better on its own.

Priests, healers, sorcerers, medicine men, witch doctors, witches, midwives, herbalists and physicians "relied exclusively on scientifically unproven potions and procedures," Benson writes, most of which had no physical value and some of which did more harm than good. Medicine and superstition were closely related until relatively recently. American Indian medicine men used rituals to hasten recovery. To this day,

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Chronology

1800s *Germ theory emerges; U.S. faith-healing takes root.*

1854

French researcher Louis Pasteur discovers germs cause most diseases.

1872

English scientist Sir Francis Galton investigates prayer's effect on longevity.

1874

German physician Robert Koch discovers bacteria that cause disease.

1879

Mary Baker Eddy establishes Christian Science religion, which promotes "spiritual" healing.

1900s-1950s

Penicillin is discovered; evangelical faith healing expands, aided by radio.

1902

American psychologist William James links psychological and physiological effects of religion.

1941

Penicillin, first modern antibiotic, found effective against infection.

1955

Mass polio vaccination leads to radical decline of the disease.

1970s-1980s

Popular books promote healing via mind-body connection.

1974

Department of Health, Education

and Welfare requires states receiving federal child-abuse program funds not to charge parents with child abuse or neglect if they refuse medical treatment for a sick child on religious grounds.

1979

Journalist Norman Cousins publishes *Anatomy of an Illness*, describing how he healed himself with positive thoughts and behavior.

1983

Federal government rescinds requirement that states allow religious exemptions in child-abuse laws.

1988

First large study of heart patients prayed for by strangers claims they do better.

1990s *Americans' use of alternative medicine increases; studies on religion and health accelerate; most states retain religious exemptions for child abuse.*

1995

Templeton Foundation begins awarding \$50,000 grants to medical schools to include spirituality in their curricula.

1996

Child Abuse and Prevention Act allows parents to withhold medical treatment on religious grounds.

1998

Study finds 172 children in faith-healing sects died between 1975 and 1995 after parents withheld medical treatment.

1999

American Association of Medical Colleges adds spiritual history to

guidelines; *Archives of Internal Medicine* publishes study claiming heart patients do better if prayed for; physicians criticize methods.

2000s *Spirituality enters medical mainstream; prayer is most common alternative healing method; scandal challenges credibility of prayer research.*

December 2000

Harvard Medical School offers "Mainstreaming Spirituality" program.

September 2001

Journal of Reproductive Medicine publishes study claiming prayed-for mothers receiving in vitro fertilization produced twice as many pregnancies as those not prayed for.

December 2001

Mayo Clinic study finds no benefit for prayed-for heart patients.

2003

Joint Commission on Accreditation of Healthcare Organizations recommends doctors assess patients' spiritual values.

May 27, 2004

Health and Human Services survey finds that more than half of American adults pray for healing.

Dec. 4, 2004

Columbia researcher Rogerio A. Lobo pulls his name from in vitro prayer study after coauthor Daniel P. Wirth pleads guilty in unrelated fraud case. Prayer data is questioned.

2005

Almost 75 percent of U.S. medical schools teach spirituality.

Prayer Study Scandal Reveals Gullibility, Critics Say

A study in the respected *Journal of Reproductive Medicine* three years ago made an astounding claim: Scientists had proven the power of prayer. Women who were prayed for while undergoing in vitro fertilization (IVF) at a South Korean fertility clinic, the journal said, had twice as many pregnancies as those not prayed for.¹

Lead author Rogerio A. Lobo, then the chairman of obstetrics and gynecology at Columbia University's College of Physicians and Surgeons, told ABC's "Good Morning America" that the results were "very significant" in their statistical reliability.² *The New York Times* highlighted the fact that the women did not know they were being prayed for; the paper did not, however, include any comments from skeptics.³

But Bruce L. Flamm, a clinical professor of obstetrics and gynecology at the University of California, Irvine, was suspicious as soon as he read the paper. A 100 percent increase in the pregnancy rate for IVF patients (from 26 percent of the women who weren't prayed for to 50 percent of the women prayed for) would be such a phenomenal breakthrough that the authors "should win a Nobel Prize," he says.

He criticized the researchers' methods in the spring 2002 issue of *Scientific Review of Alternative Medicine*, which takes a skeptical view of non-traditional healing methods.

Then, in April 2004, Flamm read that one of the study's three authors, Daniel P. Wirth, had pleaded guilty to unrelated mail and bank fraud. The next month, Flamm posted an online article noting Wirth had no medical degree.

Within days, Flamm finally received his first press call, from a British reporter. On May 30, the *Observer International* published the first media report on the scientific aspect of the controversy.⁴ *The Chronicle of Higher Education* and the *New York Sun* picked up the story in early June. But *The Times* didn't report on the scandal until October; by late December — three years after its publication — dozens of mainstream news organizations had reported the story — including the first attention they had given to criticism of the study.

In November 2004, Wirth was sentenced to five years in prison, and in early December Lobo removed his name from the paper, telling reporters that though he was listed as the senior author he had only learned of the study after it was completed.⁵ A second author, Kwang Cha, a South Korean fertility specialist visiting Columbia, said he had received Wirth's data during a meeting at a Starbuck's in 1999.⁶

To some, Wirth appeared to be the only remaining author who could have actually designed and supervised the study. "Not only is the study absurd, it's possible it was never even done," Flamm now suggests. "I can't envision how someone could one day be setting up prayer groups in Australia, then flying back and setting up a money-laundering account in Pennsylvania, then flying to Canada to set up a prayer group and then fly to California to set up another money-laundering account."

The scandal raises troubling questions about the reliability of prayer studies and how the press — both mainstream and scientific — reports on them. "If Mr. Wirth hadn't done me the favor of being arrested by the FBI, we wouldn't be on the phone right now," Flamm told a reporter. He wants Columbia University to publicly retract the study to prevent it from remaining in the medical literature as scientific evidence of the power of distant healing. Columbia officials did not respond to a request for comment.

"The fact that one study should have a fraudulent basis throws the whole field [of prayer studies] into question," says Ronald M. Green, director of the Ethics Institute at Dartmouth College. "Every study of this sort is a brick in the edifice of healing. People believe in this and invest their lives in this kind of medicine." Without a retraction from Columbia and the journal that published it, he says, "It still goes on record that prayer was found to be efficacious in some studies."

Green is particularly disturbed that the paper was published in the first place. "The intrinsic findings are so shocking there should have been red flags," he says. "Had I been a reviewer on that article, I would have requested further information on the research team and its methods."

Moreover, the journal never published letters by Flamm and other physicians criticizing the paper. Indeed, rather than disavowing it, the journal recently restored the article to its Web site, after a brief absence, along with a letter from Cha defending it.⁷

Some researchers joined Cha in defending the study. "The controversy may or may not have anything to do with the actual science. As far as I can tell, the study was done very well scientifically," says John Astin, a psychologist at California Pacific Medical Center in San Francisco, who is studying the effect of distant healing on AIDS.

After all, some defenders of the study say, would it matter if an author got a lot of traffic tickets as long as his research was well executed?

Wirth "was arrested for a 20-year history of criminal fraud," Flamm retorts. "The key word is fraud. In my mind, it's relevant."

1 K. Y. Cha, D. P. Wirth and R. A. Lobo, "Does Prayer Influence the Success of In Vitro Fertilization-Embryo Transfer?" *Journal of Reproductive Medicine*, September 2001, pp. 781-787.

2 "Good Morning America," "Dr. Roger Lobo Talks About a Study Showing that Prayer Influenced Pregnancy," Oct. 4, 2001.

3 Eric Nagourney, "Vital Signs: Fertility; A Study Links Prayer and Pregnancy," *The New York Times*, Oct. 2, 2001.

4 "Exposed Con-Man's Role in Prayer-Power IVF Miracle," *Observer International*, May 30, 2004, at <http://observer.guardian.co.uk/international/story/0,6903,1227841,00.html>.

5 Benedict Carey, "Researcher Pulls His Name From Paper on Prayer and Fertility," *The New York Times*, Dec. 4, 2004.

6 Benedict Carey, "Can Prayers Heal? Critics Say Studies Go Past Science's Reach," *The New York Times*, Oct. 10, 2004.

7 Kwang Y. Cha, "Clarification: Influence of Prayer on IVF-ET," *Journal of Reproductive Medicine*, November 2004, at www.reproductivemedicine.com/Letters/Letters.htm.

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African medicine men offer incantations, giving their delivery of medicine a spiritual cast.

Even ancient philosophers recognized the importance of hope in recovery. As the Roman philosopher Seneca noted, "It is part of the cure to wish to be cured."

Without scientific knowledge of the causes of disease, people believed illness was caused by a loss of favor with God or several gods, depending on their faith.

Before the advent of science, the Christian church played a major role in caring for the sick. In the fourth century, Eastern Orthodox Christians in Caesarea, Turkey, established the first hospital in the Western world. Over the next 12 centuries, the Christian church built and staffed most of the hospitals in Europe and England. Many of the physicians during this era were monks or priests, addressing spiritual and physical needs interchangeably.³³

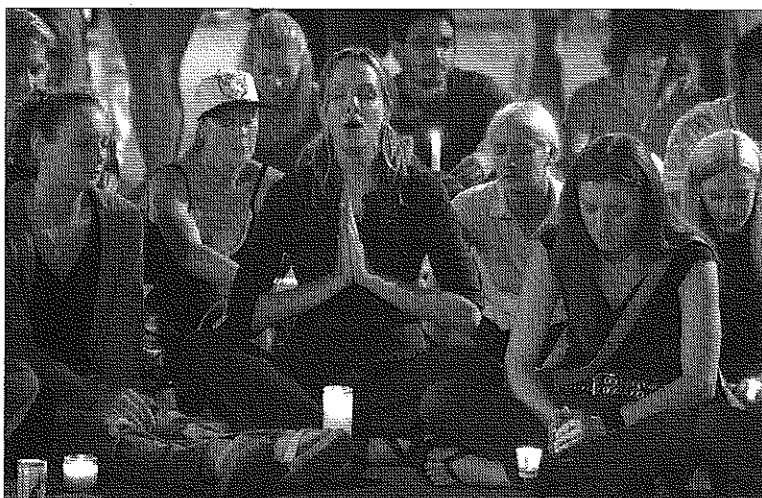
During much of this period, the Christian church controlled

the major universities where medical training took place and directed the licensing of physicians to practice medicine. As the scientific revolution gained momentum in the 17th and 18th centuries and the rationalist philosophy of the Enlightenment exerted its influence, the church's control and influence over medicine waned.

When the sanitation movement spread across Europe in the mid-1800s — with its introduction of sewage systems, garbage disposal and clean water — deadly diseases like cholera

and typhoid fever declined dramatically, and life expectancy lengthened. "People stopped blaming illness on . . . the will of God," Benson notes and began to realize that rotten food and dirty water were the root of the problem. Increasingly, people in the West turned to rational explanations for death and disease rather than the divine.³⁴

Despite the church's dwindling influence, many hospitals have remained affiliated with religious institutions. Today, religiously affiliated hospitals, many established at the turn of the 20th century, provide about 20 percent of inpatient care.³⁵



Dancers from the "Siegfried and Roy" show in Las Vegas hold a candlelight prayer vigil for famed animal trainer Roy Horn, at University Medical Center on Oct. 5, 2003, after a tiger mauled him during a performance.

AP Photo/Laura Rauch

Nursing has an even stronger religious tradition. The Daughters of Charity of St. Vincent de Paul began to organize Catholic nuns to work in religious and secular hospitals in 1617. By 1789, the order ran more than 400 hospitals in France alone. A Protestant equivalent, known as the "deaconesses," developed in the United States. In 1803, Elizabeth Seton, founder of the Daughters of Charity of St. Joseph, adopted the French philosophy of the Daughters of Charity, and officially started the first organized

nursing group in Emmitsburg, Md. In 1837, Florence Nightingale, the founder of modern nursing, sought training among the Daughters of Charity and Protestant deaconesses after receiving "a call from God."³⁶

Faith Healing

The end of the 19th century witnessed a series of seminal scientific discoveries. In 1854, French researcher Louis Pasteur discovered that germs cause most diseases. In 1874, the German physician Robert Koch identified the bacteria that caused anthrax in sheep and later discovered that both tuberculosis and cholera were caused by specific bacteria. In 1890, Emil Behring, a German, and Shibasaburo Kitasato, a Japanese, discovered that injection with a small dose of tetanus bacterium toxin could prevent tetanus or lockjaw. Even more miraculous was the 1941 discovery of penicillin as the first modern antibiotic effective against deadly bacterial infections like pneumonia and venereal disease.

With these discoveries came the expectation that all healing could be accomplished by scientific means. Some doctors argue that today, however, the pendulum has swung too far in the direction of scientific medicine and that practitioners ignore the powerful interactions between mind and body. As Benson notes, managed care has only exacerbated this trend, because insurers are unlikely to reimburse for a diagnosis of "stomach problems brought on by tension over passing the bar exam" or "general malaise after the death of a friend."³⁷

Understanding Alternative Therapies

The National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes for Health defines complementary and alternative health care and medical practices as any method (or combination of methods) that is not an integral part of conventional medicine. The center groups these practices into the following five areas:

Alternative Medical Systems — Complete systems of theory and practice that have evolved independent of and often prior to the conventional biomedical approach. Many are traditional systems of medicine that are practiced by individual cultures, such as traditional Oriental medicine; ayurveda (a Hindu medicine system); homeopathy; and naturopathy (an emphasis on returning the body to health naturally instead of treating the disease).

Mind-Body Interventions — A variety of techniques designed to help the mind affect bodily functions and symptoms, including: hypnosis; dance; music and art therapy; meditation; and prayer.

Biologically Based Therapies

Natural and biologically based practices, interventions and products, many of which may overlap with conventional medicine:

dietary supplements; herbal therapies; special diets; and orthomolecular (using mega-doses of vitamins to improve the body's nutrient balance) therapies.

Manipulative and Body-Based Methods

Treatments based on manipulation and/or movement of the body: chiropractic; osteopathy; rolfing; and massage therapy.

Energy Therapies

A focus on energy fields originating within the body (biofields) or those from other sources, such as electromagnetic fields: Qi Gong; Reiki; Therapeutic Touch; and bioelectromagnetic therapy (the use of pulse or magnetic fields).

NCCAM suggests researching and asking the following questions when selecting any practitioner or therapy:

- Is the method safe and effective, and do the benefits outweigh the risks?
- Is the practitioner licensed and accredited?
- Under what condition is the therapy given?
- What is the estimated cost of the course of treatment, and will insurance companies reimburse for any of the treatments or therapies?

According to Benson, doctors also have been reluctant to recognize the role that placebo still plays. Numerous studies demonstrate that "every specialty and treatment benefits from affirmative beliefs," he writes. "I have found that faith quiets the mind like no other form of belief, short-circuiting the non-productive reasoning" and worries that often exacerbate disease.³⁸

Yet alongside the growing influence of rationalism, faith healing has had a vigorous and remarkably tenacious tradition in the United States.

In 1866, Mary Baker Eddy, a New Hampshire woman who had suffered from frail health most of her life, claimed an immediate recovery of her health when she read an account of healing by Jesus in the New Testament. In 1879, she founded the Church of Christ, Scientist in Boston. Christian Scientists believe in divine healing, argue that illness is an illusion to be overcome

by the mind and usually refuse medical help in fighting sickness.

The present-day Christian claim that certain people can heal the sick by the "laying-on of hands" originated with 19th-century American and European evangelists. The Rev. William Branham, an evangelical preacher from Indiana, is often credited with starting the modern healing movement in the 1940s. During his services, like many fundamentalist preachers, he produced miraculous recoveries that on closer examination turned out to be fakes, magician James Randi recounts in his 1989 book, *The Faith Healers*.

In 1947, Branham apparently cured Walker Beck, a deaf-mute in Vandalia, Ill. When he heard the next day that Beck's condition was as bad as ever, he attributed it to Beck's defying his instructions by smoking a cigarette after he was "cured."³⁹

Faith healing experienced a revival in the 1950s, when American evangelist Oral Roberts began broadcasting on radio. Since then, healers and TV evangelists like Pat Robertson have found a durable following for their reputed ability to call on God to raise crippled congregants from their wheelchairs or let blind men see.

Randi describes how he discovered that several contemporary faith healers used commonplace magic tricks: "I came upon every common method of technical, psychological, semantic and physical chicanery that one can imagine being used to deceive the public — and some new ones as well."⁴⁰

Former Pentecostal faith healer Hector Avalos has revealed that many of those he "healed" in highly public settings were never sick to begin with. Others wanted to believe their illness had gone away even though the symptoms didn't disappear, he says.⁴¹ According to Randi, not a single miracle healing by faith healers has ever been proven.

Religion and Health

Sir Francis Galton, an English scientist and contemporary of Darwin's, made one of the first attempts to study religion's impact on health scientifically. In 1872 his *Statistical Inquiries into the Efficacy of Prayer* investigated whether monarchs, who received more prayers than most people, and clergy, who presumably prayed more than most, lived longer than other people.⁴² He found they did not. "Prayer has therefore no efficacy," he concluded.⁴³

In *The Varieties of Religious Experience*, William James, a founder of American psychology, drew connections between the psychological and the physiological aspects of religious experience. The 1902 book continues to be influential in psychology and theology. The French sociologist Emile Durkheim (1897-1951), often called the father of sociology, described shared religious participation as one of the fundamental forces integrating people in society.

Interest in studying religion dwindled during the 20th century, as both medicine and psychology became increasingly interested in biological roots. But a popular strain of interest in the mind/body connection experienced a resurgence in 1979 with the publication of journalist Norman Cousins' *Anatomy of an Illness*, which described how he had checked himself out of the hospital and healed

himself of serious illness with his positive thoughts and behavior.

His popular 1989 book looking at the issue more generally, *Head First: The Biology of Hope and the Healing Power of the Human Spirit*, has been followed by many similar books. A growing interest in the connection between spirituality and health has also been reflected in the numerous studies of the effects of church attendance and religious beliefs on health and mortality. ■



The Rev. Kathleen Kiley, a self-proclaimed spiritual healer in Atlanta, prays with a Parkinson's disease patient during a clinical study of possible links between prayer and health at Emory University's Center for Research on Complementary and Alternative Medicine. A \$6.2 million grant from the National Institutes of Health supports the study.

AP Photo/John Amis

as evidenced by the growing popularity of alternative medicine — has reawakened interest in the possible connection between prayer and healing.

In fact, the word "spirituality" did not even appear in the Medline online database of medical journal articles until the 1980s. During the '90s, however, the number of published studies on religion and health spiked. One influence may have been the increasingly impersonal nature of managed care, which has awakened a yearning in many patients to see the "whole person" brought back into medicine.⁴⁴

The American public's use of alternative medicine, including prayer, also increased substantially during the 1990s. A recent government survey found dissatisfaction with conventional medical care and its inability to adequately treat many chronic diseases and their symptoms, such as debilitating pain.⁴⁵

In 2000, the Harvard Medical School Department of Continuing Education offered a program on spirituality and healing entitled "Mainstreaming Spirituality." In its curriculum guidelines

the American Association of Medical Colleges includes among its goals medical students' ability to elicit a spiritual history and to understand the spiritual dimension of people's lives as "an avenue for compassionate care giving."⁴⁶

The Joint Commission on Accreditation of Healthcare Organizations recommends that hospitals and other providers assess and address the spiritual values of their patients.⁴⁷

Much of the activity in the educational and research arena has been

CURRENT SITUATION

Spirituality Studies

The recent pendulum swing toward making medicine more holistic —

Studying the Power of Hope

To Harvard Medical School Professor Jerome Groopman, the power of hope is something we are just beginning to understand. In his recent book, *The Anatomy of Hope*, he recounts cases of patients and colleagues who recovered from debilitating diseases because, he contends, they maintained hope — sometimes against all odds. In some cases, the hope came from a deeply held religious faith; in others it had nothing to do with religion.

"We are just beginning to appreciate hope's reach," Groopman writes, "and have not yet defined its limits. I see hope as the very heart of healing."¹

A prominent AIDS researcher, Groopman describes ongoing studies seeking to uncover the brain's inner workings that might explain how hope exerts physiological influence. Perhaps belief and expectation — the key building blocks of hope — can block pain by releasing brain chemicals called endorphins, which mimic the effect of morphine, Groopman suggests. In some cases, he says, hope also can have important effects on physiological processes like respiration, circulation and motor function.

University of Wisconsin psychologist Richard Davidson is examining "resilience," or the maintenance of high levels of positive feelings and well-being in the face of serious ad-

versity. Davidson has studied the brain function of 500 elderly Wisconsin women in response to painful memories. Those who were rated as "resilient" on psychological tests did not show a sharp rise in the stress hormone cortisol when remembering a negative experience, suggesting they physiologically cushion their response to stress and possibly their physical health.

For example, resilient women responded best to the flu vaccine by producing the largest amount of antibody against the flu, while women rated "vulnerable" on psychological tests produced significantly lower amounts of the antibody.

While such findings are intriguing, it's unclear how far hope and resiliency can go in healing people with serious diseases. For instance, in the face of a disease like AIDS, which Groopman cautions "has the force of a megaton bomb on the immune system," fluxes in cortisol levels in patients who coped well emotionally are "unlikely to be of a magnitude to influence the clinical outcome in a serious way."²

¹ Jerome Groopman, *The Anatomy of Hope: How People Prevail in the Face of Illness* (2004).

² *Ibid.*, p. 206.

fostered by John Templeton, a Tennessee millionaire who now funnels the wealth he made from managing investment funds into scientific research on spirituality and God. The Templeton Foundation spends \$16 million to \$30 million a year on such studies as whether prayer can heal, making it the nation's largest funder of spirituality research. Templeton's unabashed belief in God has spurred skeptics to question the quality and objectivity of the research he funds, which includes studies by Duke's Koenig and Harvard's Benson.⁴⁸

Worthington of Virginia Commonwealth University has awarded \$3 million in Templeton Foundation funding since 1997 to researchers investigating the health impact of forgiveness, considered by some a central feature of religiosity. In response to questions about Templeton's bias, he responds, "We're reporting not only good results," adding that scholars chosen by the foundation "must submit to the most rigorous journals and go through peer review."

The foundation's funding dwarfs grants from the federal government, which has spent \$2.3 million over the last four years for studies on the effects of distant prayer on healing. The National Center for Complementary and Alternative Medicine (NCCAM) is spending \$879,000 this year for five grants to study prayer.

Since 1995, the Templeton Foundation has awarded \$50,000 each to medical schools that incorporate spirituality and medicine into their curricula. About half the schools that have introduced spirituality between 1995 and 2000 have received grants from the foundation.⁴⁹

Approximately 75 percent of the nation's 135 medical schools (including osteopathic schools) — have incorporated some material about spirituality into their curriculum, according to Puchalski, who administers Templeton funding through the George Washington Institute for Spirituality and Health.

But skeptics like Harvard psychologist Richard J. McNally said even the

small amount spent on such research by the federal government has been "a total waste of time and money." McNally said research on remote intercessory prayer in particular "presupposes some supernatural intervention that is by definition beyond the reach of science."⁵⁰

In an e-mail, NCCAM Program Officer Catherine M. Stone defended the center's funding: "Prayer for health purposes falls within the domain of mind-body medicine." She also noted that prayer is "quite commonly employed among American adults for health reasons."

According to the 2002 survey conducted by the Health and Human Services Department, in addition to the 55 percent of American adults who have prayed for better health for themselves or someone else, 24 percent had others pray for them, and nearly 10 percent had participated in a health prayer group in the past year.⁵¹ Stone says "scientists supported by NCCAM have been able to employ scientifically

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At Issue:

Should doctors take “spiritual histories” of their patients?

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WRITTEN FOR *THE CQ RESEARCHER*, JANUARY 2005

doctors routinely assess all systems that could have a bearing on symptoms and the patient's ability to cope. For the assessment to be complete, doctors should also screen the patient's spiritual and religious beliefs and practices as they affect illness and coping.

Religious belief is the lens through which many patients give meaning to the experience of their illness and make decisions about how their treatment should proceed. These beliefs can produce either adaptive or maladaptive coping and can either exacerbate or minimize symptoms. Further, religious practices, especially prayer, are consistently reported as the most commonly used coping strategies.

Some people argue that spiritual assessment by physicians would be too intrusive and sensitive — or even offensive — to some patients and that this assessment requires specialized knowledge of theology or religious systems that most medical professionals do not normally possess. But questions about religious beliefs are no more sensitive than questions about sexual activity or bowel and bladder function. Physicians need to be ready to explain to patients that these questions are being asked, not to challenge the patient's belief, but to help incorporate them into the treatment process. Most patients want their physicians to know how their religious beliefs are related to their illness, especially as they become sicker or near death.

Certainly, it is helpful for physicians to understand the religion and culture of their patients, but no special knowledge is needed, given the number of readily available spiritual assessment instruments.

When a spiritual assessment is not done, major miscommunications can occur between a patient speaking the language of faith and a physician speaking the language of science. The physician may fail to find out about complementary practices the patient is using, some of which may be contraindicated. The patient will also not have the opportunity to report such feelings as anxiety, guilt and hopelessness, which often have roots in religious belief. An opportunity will be missed to refer the patient to a professional pastoral caregiver who can provide treatment for spiritual distress, which can improve the patient's coping and quality of life.

A brief spiritual screening by physicians as part of a global assessment is easy to do with no special knowledge and readily accessible instruments and can bring important benefits to the treatment process and to the physician-patient relationship.

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medical ethics has four core principles: beneficence (doing good), nonmaleficence (doing no harm), autonomy (respecting patients) and justice (treating all patients fairly). Because of the wide acceptance of these principles, it is useful to keep them in mind when assessing health care practices. Physicians and others who advocate greater attentiveness to patients' spirituality argue that if we want to treat patients as “whole persons,” we cannot separate their beliefs about the meaning of their lives from the health of their bodies and minds. Some use a series of questions designed to elicit a patient's “spiritual history,” others conduct a “spiritual assessment.” If physicians wish to provide spiritual care, this care must adhere to the ethical standards of their profession. However, advocates for greater, more formal inclusion of spirituality into clinical medicine may pay insufficient attention to ethics.

To say that something — here, the human search for meaning — is natural is not to say it is the right thing to do: Philosophers warn against this “naturalistic fallacy.” And not every belief a patient may identify as meaningful is beneficial to that patient's health and well-being. Other beliefs patients may identify as meaningful to them may be offensive or destructive to others. Are physicians required to accommodate these beliefs? Or are they responsible for distinguishing between “good” and “bad” spirituality? And because the relationship between physician and patient is unequal, and because asking about beliefs can place pressure on the respondent to choose the “right” answer (ask any pollster), one must consider whether taking a patient's spiritual history could reinforce unequal power relationships, be intrusive or place undue pressure on a sick person. If a physician diagnoses a “spiritual” need a patient does not wish to discuss, is that patient “noncompliant”? Integrating spiritual care into a hospital's organizational quality assurance and improvement efforts is another challenge: If spiritual care is medical care, what are its standards when it is provided by a physician rather than a chaplain?

All health-care providers should treat patients as whole persons, and attentiveness to that hard-to-define human quality that some term “spirituality” is important. But to label something “spiritual” doesn't make it ethical. Physicians who seek to assess spiritual needs and provide spiritual care are still acting as physicians, and are obligated to uphold the ethical standards of their profession by ensuring that their spiritual care practices do no harm.

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valid designs to test the role of prayer in physical and mental health.”

Study Scandals

But some federally funded studies continue to be quite controversial. A study begun in 1995 by psychiatrist Elisabeth Targ at the University of California, San Francisco — one of two funded by NIH at the California Pacific Medical Center — found that AIDS patients who were prayed for had fewer complications, including fewer hospitalizations, than a control group.⁵²

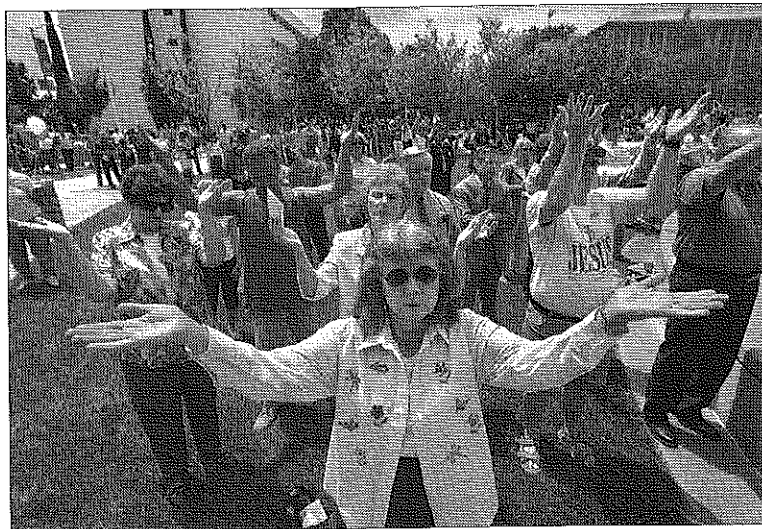
The authors of that study were accused of manipulating the data in an account in *Wired* magazine. The study was originally designed to test a difference in the death rate, *Wired* reported. But anti-retroviral therapy, which is permitting people with AIDS to live longer lives, became common practice one month into the six-month trial, and only one patient in the entire study died, making a mortality comparison meaningless.

In an effort to prove the prayed-for group did better, according to the *Wired* account, the authors then broke the code that hid each group's results from them. (In order to prevent researchers from biasing their results, the authors were supposed to be “blinded” as to which group got which results until the end of the study.) Targ and her fellow researchers kept testing variables like

quality of life and mood until they found an improvement that proved better for the prayed-for group and was statistically significant (not due to chance) — in this case shorter hospital stays and doctor visits, according to *Wired*.⁵³

“They didn't report that they did that,” says Columbia's Sloan, who calls their actions “a real violation” of scientifically ethical standards.

Targ's other study investigated the effect of distant healing on patients with brain tumors. (She herself died of a brain tumor in 2002.) Both of her studies are continuing at California Pacific, although no results of the brain tumor study have been published yet.



Californians lift their hands in prayer during the National Day of Prayer at Fresno City Hall, May 6, 2004. Twelve clergy members led prayers in English, Armenian, Spanish and Arabic. Fifty-five percent of Americans pray for better health, and a quarter belong to so-called prayer circles.

AP Photo/The Fresno Bee/John Walker

Astin, a California Pacific researcher who is leading the follow-up study to Targ's AIDS study, denies the author manipulated her original study.

“It's true there was no difference in mortality [between the two groups] but it was never the sole intention to study effects on mortality,” he maintains. He also denied the accusation that the authors had “unblinded” their data so they that they knew which

patients got which results before reporting the data. “That's absolutely not the case,” he says.

In a South Korean prayer-study scandal, one of the authors of a study of women undergoing in vitro fertilization is going to jail for criminal fraud. The possibility of data manipulation has also been raised. (See sidebar, p. 38.)

Children's Health

When adults choose the healing power of prayer, it's one thing. But when parents choose prayer instead of medicine to heal their sick children, it's another thing altogether: Only 11 states call it a crime, however.

The 2003 suffocation death of an 8-year-old autistic boy during a prayer service on his behalf in a Wisconsin storefront church highlighted the fact that parents who treat their sick children with prayer rather than medicine are protected by nearly 40 state laws. Terrance Cottrell Jr. died after minister Ray Hemphill lay on top of him for more than an hour in an attempt to drive “evil spirits” from his body. Hemphill was sentenced to 2 1/2 years in prison for the child's death.

Hemphill could have gotten off scot-free because of a state law that bars child-abuse prosecutions brought solely because a parent chooses to provide a sick child with spiritual treatment, such as prayer alone.⁵⁴

However, Milwaukee County District Attorney E. Michael McCann said he could override Wisconsin's law by proving that the minister's behavior went far beyond prayer.⁵⁵ The prosecution

argued that the minister's lying on top of Cottrell in a stifling, hot church during the two-hour ceremony had led to his death. ⁵⁶

Prosecutors and doctors have long opposed such religious exemptions, according to the Iowa-based group "Children's Healthcare is a Legal Duty." ⁵⁷ Thirty nine states plus the District of Columbia have exemptions in their civil child-abuse and neglect laws, according to the group, and 20 states have religious defenses to felony crimes against children — such as the one Hemphill was convicted of. According to a study in the journal *Pediatrics*, between 1975 and 1995 172 children in faith-healing sects died after their parents refused to seek medical treatment. ⁵⁸

The federal government in 1974 began requiring states that receive federal money for child-abuse programs to provide religious exemptions in their child-abuse and neglect laws. Although the federal requirement was removed in 1983, attempts to repeal the exemptions have mostly failed. ⁵⁹

In fact, the federal 1996 Child Abuse and Prevention Act allowed parents to withhold medical treatment from their children if they have religious objections. Christian Scientists — who eschew traditional medicine in favor of spiritual healing — were a major lobbying force behind such laws, according to Children's Healthcare. ■

OUTLOOK

More Research

Religion and science speak such different languages that it's not clear they can be combined in scientific studies. And while theologians say it's inappropriate to test God, others

say it's inappropriate from a scientific point of view to test the supernatural.

But in our overwhelmingly scientific world, scientific language confers legitimacy, so there's sure to be more of this research, especially from those with a religious agenda, which is partly why it raises the hackles of rationalists.

Two large-scale studies now awaiting publication could influence the debate. Both assigned patients randomly to be prayed for or not. A national study by Duke University researchers of 750 heart patients undergoing angioplasty tests the effect of distant prayer by Roman Catholics, Moravians and Sufi Muslims in the United States, Bud-

higher death rate should be a "safety consideration" in future clinical trials of prayer. ⁶¹ Still, the claims Krucoff has made publicly are sure to have raised expectations among those who want prayer to have an advantage. They may take comfort in the fact that 89 percent of participants in the trial knew someone who was praying for them, making this a test only of "incremental" prayer, Krucoff maintained in a recent interview. But that also raises the longstanding question of whether one can ever accurately measure the "dose" of prayer.

In another eagerly awaited study — the largest to date — Harvard's Benson

Between 1975 and 1995, 172 children in faith-healing sects died after their parents refused to seek medical treatment, according to a study in the journal *Pediatrics*.

dhist monks in Nepal and Jews in Israel, among others. The prayed-for groups were compared to patients who got standard therapy, and to others who received music, touch therapy and guided imagery.

Neither a published pilot study nor the yet-to-be-published, full-scale study found any statistically significant benefit for the prayed-for group, according to lead author Mitchell W. Krucoff, and coauthor Koenig. Krucoff has repeatedly stated in the media, however, that the prayed-for group showed "impressive reductions" in complications including death, heart failure or heart attack over patients who received standard care. ⁶⁰

In fact, his pilot study found a higher death rate for the prayer group. Although the numbers were too small to be statistically significant, the study's authors warned that the

studied some 1,800 heart-bypass patients at six hospitals who were randomly assigned to be prayed for or not. A report on the study, begun in the late 1990s with \$2.4 million from the Templeton Foundation, is currently under review at a medical journal. Sloan doubts it will support the prayer thesis. ⁶²

Benson says he became interested in the subject because "we know that praying for oneself can influence health." He says he was hoping to answer the question, "How far could it go?"

Regardless of what future studies find, it's unlikely that adherents on either side will be swayed. Dartmouth's Green notes that many people don't believe the conclusions at all, while others embrace them.

"There's a lot of wish fulfillment in the field," Green says. "It is the nature of this science that it is very, very easy to find supporting data for

one's beliefs — honestly — but in error." Studies claiming benefits from prayer will continue to be dogged by complicating variables that cast doubt on their conclusions, he predicts, such as the placebo effect of knowing one is prayed for and the lack of statistically reliable results.

In the current climate of belief, rational doubt about the supernatural often seems missing. *New York Times* TV critic Alessandra Stanley recently noted the lack of skepticism in her review of a new TV series featuring a psychic — supposedly based on a real person — who helps solve homicide cases. Doubt about whether the heroine was psychotic, rather than psychic, was totally absent, she noted.

"That absence of doubt is a measure of how normal the paranormal has become in our society — we live in a polymorphously devout culture where God speaks to a teenage girl on [the TV series] 'Joan of Arcadia,' televangelists heal the halt and lame on camera and the psychic John Edward was the host of 'Crossing Over,' which was essentially a talk show for the dead," she wrote.⁶³

Even if prayer eventually were proven beneficial, that knowledge would probably be of minimal benefit to medicine, because just telling non-believers to pray for themselves is unlikely to produce the benefit that true believers experience.

As Franciscan friar Sulmasy quips, "I wouldn't want my church filled with people who were there just because it has health benefits for them." But even if there's no scientific proof that prayer induces healing, Sulmasy says it won't stop him from praying. ■

Notes

¹ U.S. Department of Health and Human Services, "Complementary and Alternative Medicine Use Among Adults: United States, 2002," May 27, 2004. Available at <http://nccam.nih.gov>.

² Claudia Kalb, "Faith and Healing," *Newsweek*, Nov. 10, 2003.

³ See www.beliefnet.com.

⁴ Dale Matthews, et al., "Religious Commitment and Health Status: A Review of the Research and Implications for Family Medicine," *Archives of Family Medicine*, Vol. 7, No. 2, March 1998, pp. 118-124.

⁵ See Alan B. Astrow, et al., "Spirituality and the Patient-Physician Relationship," *Student JAMA*, June 16, 2004, p. 2884. In one survey, only 31 percent of physicians thought they should ask about beliefs.

⁶ Lynda H. Powell, et al., "Religion and Spirituality: Linkages to Physical Health," *American Psychologist*, January 2003, pp. 36-52.

⁷ Michael E. McCullough, "Religious Involvement and Mortality: A Meta-Analytic Review," *Health Psychology*, May 2000, pp. 211-222.

⁸ See Astrow, *op. cit.* One survey of two family practices found 77 percent of patients believed physicians should consider their spiritual needs.

⁹ Jon Krakauer, *Under the Banner of Heaven: A Story of Violent Faith* (2003).

¹⁰ Powell, et al., *op. cit.*

¹¹ R.C. Byrd, "Positive Therapeutic Effects of Intercessory Prayer in a Coronary Care Unit Population," *Southern Medical Journal*, Vol. 81, No. 7, July 1988, pp. 826-829.

¹² William S. Harris et al., "A Randomized, Controlled Trial of the Effects of Remote, Intercessory Prayer on Outcomes in Patients Admitted to the Coronary Care Unit," *Archives of Internal Medicine*, Oct. 25, 1999, pp. 2273-2278.

¹³ "Editor's Correspondence," *Archives of Internal Medicine*, June 26, 2000, pp. 1870-1878.

¹⁴ Harris, *op. cit.*, p. 2275.

¹⁵ Jennifer M. Aviles, et al., "Intercessory Prayer and Cardiovascular Disease Progression in a Coronary Care Unit Population: A Randomized Controlled Trial," *Mayo Clinic Proceedings*, December 2001, pp. 1192-1198 at www.mayo.edu/proceedings/2001/dec/7612a1.pdf.

¹⁶ For background, see David Masci, "Evangelical Christians," *The CQ Researcher*, Sept. 14, 2001, pp. 713-736.

¹⁷ N. Frasure-Smith, et al., "Depression and 18-month Prognosis after Myocardial Infarction," *Circulation*, Vol. 91, No. 4, February 1998, pp. 888-1005

¹⁸ S. A. Everson, et al., "Hopelessness and 4-year Progression of Carotid Atherosclerosis,"

Arteriosclerosis Thrombosis and Vascular Biology (1997), pp. 1490-1495.

¹⁹ Shari Roan, "Healing Body and Mind," *Chicago Tribune*, Feb. 23, 2003, p. 8b.

²⁰ Timothy B. Smith, et al., "Religiousness and Depression: Evidence for a Main Effect and the Moderating Influence of Stressful Life Events," *Psychological Bulletin*, Vol. 129, No. 4, July 2003, pp. 614-636.

²¹ Everett L. Worthington, Jr. and Michael Scherer, "Forgiveness is an Emotion-Coping Strategy that Can Reduce Health Risks and Promote Health Resilience," *Psychology and Health*, forthcoming.

²² See Susan K. Lutgendorf, et al., "Religious Participation, Interleukin-6, and Mortality in Older Adults," *Health Psychology*, Vol. 23, No. 5, September 2004, pp. 465-475.

²³ Teresa E. Seeman, et al., "Religiosity/Spirituality and Health: A Critical Review of the Evidence for Biological Pathways," *American Psychologist*, January 2003, pp. 53-63, p. 56.

²⁴ *Ibid.*

²⁵ K. I. Pargament and H. G. Koenig, et al., "Religious Struggles as a Predictor of mortality among Medically Ill Patients," *Archives of Internal Medicine*, 2001, pp. 1881-1885.

²⁶ Astrow, *op. cit.*

²⁷ Richard P. Sloan, et al., "Should Physicians Prescribe Religious Activities?" *The New England Journal of Medicine*, June 22, 2000, p. 1913.

²⁸ Astrow, *op. cit.*

²⁹ Sloan, *op. cit.*

³⁰ Survey by Farr Curlin presented at Society for General Internal Medicine national conference, Chicago, May 15, 2004.

³¹ Astrow, *op. cit.*

³² Rev. George Handzo and Harold G. Koenig, "Spiritual Care: Whose Job is it Anyway?" *Southern Medical Journal*, December 2004.

³³ Harold G. Koenig, *Spirituality in Patient Care: Why, How, When and What* (2002), p. 16.

³⁴ Benson, *op. cit.*, p. 112.

³⁵ Kayvon Moxjarrad, "Medicine and Spirituality," *Student JAMA*, June 16, 2004, p. 2880.

³⁶ Koenig, p. 17.

³⁷ Benson, *op. cit.*, p. 120.

³⁸ Benson, *op. cit.*, p. 203.

³⁹ James Randi, *The Faith Healers* (1989).

⁴⁰ *Ibid.*, p. 45.

⁴¹ Hector Avalos, "Can Science Prove that Prayer Works?" *Free Inquiry Magazine*, Summer 1997, at <http://atheism.about.com>.

⁴² Francis Galton, *Statistical Inquiries into the Efficacy of Prayer* (1872) at www.abelard.org/galton.

⁴³ *Ibid.*

- ⁴⁴ Paul J. Mills, "Spirituality, Religiousness and Health: From Research to Clinical Practice," *Annals of Behavioral Medicine*, Winter 2002, p. 1.
- ⁴⁵ U.S. Department of Health and Human Services, *op. cit.*, May 27, 2004.
- ⁴⁶ American Association of Medical Colleges, "Medical School Objectives Project," 1999.
- ⁴⁷ Modjarad, *op. cit.* See www.jcrinc.com.
- ⁴⁸ Debra Rosenberg, "A Millionaire's Last Vocation," *Newsweek*, Nov. 10, 2003, p. 56.
- ⁴⁹ Nancy Berlinger, "Spirituality and Medicine: Idiot-Proofing the Discourse," *Journal of Philosophy and Medicine*, December 2004, pp. 681-95.
- ⁵⁰ Benedict Carey, "Can Prayers Heal? Critics Say Studies Go Past Science's Reach," *New York Times*, Oct. 10, 2004, p. A1.
- ⁵¹ Department of Health and Human Services, *op. cit.*
- ⁵² F. Sicher, E. Targ, D. Moore II and H.S. Smith, "A Randomized Double-Blind Study of the Effect of Distant Healing in a Population with Advanced AIDS: Report of a Small-Scale Study," *Western Journal of Medicine*, 1998, pp. 356-363.
- ⁵³ Po Bronson, "A Prayer Before Dying," *Wired*, December 2002.
- ⁵⁴ Michael Higgins, "Boy's Death Puts Religion Exemption in Spotlight," *Chicago Tribune*, Sept. 5, 2003, p. 18.
- ⁵⁵ *Ibid.*
- ⁵⁶ Derrick Nunnally, "Minister Convicted of Felony Abuse," *Milwaukee Sentinel-Journal*, July 9, 2004.
- ⁵⁷ See www.childrenshealthcare.org.
- ⁵⁸ Seth Asser and Rita Swan, "Child Fatalities from Religion-motivated Medical Neglect," *Pediatrics*, April 1998, pp. 625-9.
- ⁵⁹ Marilyn Larkin, "Faith Healing Implicated in Preventable Child Fatalities," *Lancet*, April 1998.
- ⁶⁰ See Discovery Channel Canada, "The Power of Prayer?" Nov. 20, 2001 at <http://.exn.ca/stories/2001/11/20/52> and BBC News, "No health benefit from Prayer," Oct. 15, 2003 at <http://news.bbc.co.uk>.
- ⁶¹ Mitchell W. Krucoff, *et al.*, "Integrative Noetic Therapies as Adjuncts to Percutaneous Intervention During Unstable Coronary Syndromes: Monitoring and Actualization of Noetic Training (MANTRA) Feasibility Pilot," *American Heart Journal*, November 2001, pp. 760-767, p. 760.
- ⁶² Carey, *op. cit.*
- ⁶³ Alessandra Stanley, "When DNA Fails to Crack a Case, Call a Psychic Friend," *The New York Times*, Jan. 3, 2005, p. E3.

FOR MORE INFORMATION

Beliefnet; <http://beliefnet.org>. Ecumenical, faith-based Web site posting numerous prayer group links and religion news.

Center for Spirituality, Theology and Health, Duke University; www.dukespiritualityandhealth.org. Conducts research on prayer/religion and health.

Children's Healthcare Is a Legal Duty, Box 2604, Sioux City, IA 51106; www.childrenshealthcare.org. Nonprofit organization to protect children from abusive religious practices; opposed to religious exemptions to child-abuse laws.

Church of Christ, Scientist; www.tfccs.com. A religion that believes in spiritual, prayer-based healing.

Commission for Scientific Medicine and Mental Health, P.O. Box 741, Amherst, NY 14226; (716) 636-1425; www.csmmh.org. Devoted to "the scientific examination of unproven alternative medicine and mental health therapies;" publishes the *Scientific Review of Alternative Medicine* at www.sram.org.

Committee for Scientific Investigation of the Claims of the Paranormal; www.csicop.org. Investigates paranormal and fringe science and publishes *Skeptical Inquirer* magazine.

George Washington Institute for Spirituality and Health, Suite 510, 2131 K St., N.W., Washington, DC 20037-1898; (202) 496-6410; www.gwish.org. Has developed a spiritual history questionnaire for doctors to use with patients.

John Templeton Foundation, 300 Conshohocken State Road, Suite 500, West Conshohocken, PA 19428; (610) 941-2828; www.templeton.org. Funds studies of prayer and medical school courses in spirituality.

National Center for Complementary and Alternative Medicine, National Institutes of Health, Bethesda, MD 20892; <http://nccam.nih.gov>. The federal government's research arm studying alternative medicine, including prayer.

Mind/Body Medical Institute, 824 Boylston St., Chestnut Hill, MA 02467; (617) 991-0102; www.mbmi.org. Studies prayer, meditation and mind-body interaction.

<http://atheism.about.com/cs/problemswithpray>. Posts articles criticizing prayer, faith healing and prayer-health studies from an atheistic viewpoint.

Student JAMA "Medicine and Spirituality" Issue, June 16, 2004; <http://jama.ama-assn.org/content/vol291/issue23/msindex.dtl>. An issue of the now defunct, student-run offshoot of the *Journal of the American Medical Association* that focused on the use of spirituality in medicine.

Quackwatch; www.quackwatch.org. Guide to quackery and health fraud. Takes a skeptical view of the supernatural and paranormal.

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Bibliography

Selected Sources

Books

Benson, Herbert, *Timeless Healing: The Power and Biology of Belief*, Fireside, 1996.

An associate professor of medicine at Harvard Medical School and founder of the Mind/Body Medical Institute says meditation, prayer and other forms of the "relaxation response" produce healing.

Koenig, Harold G., *Spirituality in Patient Care: Why, How, When and What*, Templeton Foundation Press, 2002.

The director of Duke University's Center for Spirituality, Theology and Health says doctors should include spirituality in their care of patients in part because there's a link between religion and health.

Groopman, Jerome, *The Anatomy of Hope: How People Prevail in the Face of Illness*, Random House, 2004.

A professor of medicine at Harvard Medical School recalls cases where patients' remarkable recoveries appeared to be caused by hope and offers possible explanations.

Randi, James, *The Faith Healers*, Prometheus Books, 1989.

A professional magician exposes the tricks he says are used by contemporary Christian faith healers.

Shuman, Joel James, and Keith G. Meador, *Heal Thyself: Spirituality, Medicine and the Distortion of Christianity*, Oxford University Press, 2003.

Two Christian theologians warn against introducing spirituality into medicine, charging it creates its own narcissistic religion.

Articles

BBC News, "No Health Benefit from Prayer," Oct. 15, 2003 at <http://news.bbc.co.uk/go/pr/fr/-/health/3193902.stm>.

One of the few articles to point out that Duke's study of 750 heart patients found no benefits for patients prayed for by strangers, contradicting the authors' earlier claims.

Berlinger, Nancy, "Spirituality and Medicine: Idiot-Proofing the Discourse," *Journal of Philosophy and Medicine*, December 2004, pp. 681-695.

An expert in religious ethics discusses the ethical problems raised by doctors who assess their patients' spirituality.

Bronson, Po, "A Prayer Before Dying," *Wired*, December 2002, at www.pobronson.com/A_Prayer_Before_Dying.htm.

Researcher Elisabeth Targ is accused of manipulating data in her study of distant healing to make it appear that prayed-for AIDS patients fared better than others.

Carey, Benedict, "Can Prayers Heal? Critics Say Studies Go Past Science's Reach," *The New York Times*, Oct. 10, 2004, p. A1.

The major studies claiming patients do better when strangers pray for them from a distance are flawed, according to critics.

Flamm, Bruce L., "Faith Healing by Prayer: Review of a Questionable Study," *Quackwatch*, June 1, 2004, www.quackwatch.org/11Ind/wirthstudy.html.

A physician questions the findings of a 2002 study that said strangers' prayers doubled the pregnancy rate of women at a South Korean fertility clinic.

Handzo, George, and Harold G. Koenig, "Spiritual Care: Whose Job is It Anyway?" *Southern Medical Journal*, December, 2004, pp. 1242-1244.

A physician and a chaplain argue that doctors should screen patients for spiritual needs as they relate to health care.

Harris, William S., et al., "A Randomized Controlled Trial of the Effects of Remote, Intercessory Prayer on Outcomes in Patients Admitted to the Coronary Care Unit," *Archives of Internal Medicine*, Oct. 25, 1999, pp. 2273-2278.

This study concluded heart patients fared better if they were prayed for by strangers. Numerous critical letters followed. (See June 26, 2000, issue, pp. 1870-1878.)

Lawrence, Raymond J., "The Witches' Brew of Spirituality and Medicine," *Annals of Behavioral Medicine*, Winter 2002, pp. 74-76.

The director of pastoral care at New York-Presbyterian Hospital argues against doctors assessing a patient's spirituality.

Powell, Lynda H., et al., "Religion and Spirituality: Linkages to Health," *American Psychologist*, January 2003, pp. 36-51.

This review of studies of religion and health found only one theory persuasive: Regular churchgoers live longer lives.

Sloan, R. P., et al., "Viewpoint: Religion, Spirituality and Medicine," *Lancet*, Feb. 20, 1999, pp. 664-667.

A Columbia University psychologist calls the evidence of a link between religion and health "weak and inconsistent" and warns doctors not to engage in spiritual discussions with patients.

Reports and Studies

U.S. Department of Health and Human Services, "Complementary and Alternative Medicine Use Among Adults: United States, 2002," May 27, 2004.

This survey found that praying for their own health is the most popular form of alternative medicine among American adults. <http://nccam.nih.gov/news/report.pdf>.

The Next Step:

Additional Articles from Current Periodicals

Alternative Cancer Treatments

Freedman, Lew, "Survivors Are Hooked," *Chicago Tribune*, Sept. 5, 2004, Sports Section, p. 15.

Through a group called Reeling and Healing, women dealing with cancer are going fishing to mend their spirits.

Travis-Bildahl, Sandra, "Battling Cancer With Planning and Prayer," *The Washington Post*, March 18, 2004, p. T3.

A 48-year-old home-building executive with a rare form of lung cancer claims he beat his disease through a self-developed strategy using nutrition, medicine and a round-the-clock prayer group.

Tyre, Peg, "Health for Life: Cancer; Combination Therapy," *Newsweek*, Sept. 27, 2004, p. 66.

Tens of thousands of cancer patients are using mind-body practices like conscious relaxation, visualization and prayer to help them deal with their disease, and recent research has shown that such practices can enhance a patient's immune system.

Alternative Healing

Agnvall, Elizabeth, "You Use That Stuff, Too?" *The Washington Post*, June 29, 2004, p. F1.

The National Center for Complementary and Alternative Medicine released a survey showing that nearly two-thirds of American adults used complementary and alternative medicine, including prayer, in the past year.

Hey, Barbara, "Healing In a Bottle; For Some Denver Catholics, Lourdes Water Satisfies the Soul," *The Denver Post*, May 27, 2003, p. F1.

Water from Lourdes, France — where St. Bernadette reportedly saw a vision of the Virgin Mary nearly 150 years ago — has the power to heal the sick in body, mind and spirit, say many devotees in the Denver area.

Hontz, Jenny, "The Energy to Heal," *Los Angeles Times*, July 5, 2004, p. F1.

Once the provenance of faith healers, shamans, ancient and New Age mystics, energy healing — including reiki, pranic healing and theta healing — is increasingly used in hospitals to complement Western medicine; and the National Institutes of Health is funding related energy medicine studies.

Russell, Sabin, "Americans Broaden Concepts of Medicine," *The San Francisco Chronicle*, May 28, 2004, p. A12.

Nearly two out of three Americans use unconventional approaches — including prayer, acupuncture and homeopathy — to mend their bodies or maintain their health, with prayer being the most popular.

Winn, Steven, "Scientists Are Coming Around to the Idea That Art Can Heal. But Don't Listen To Them: Just Talk to a Cancer Patient Who Is Finally Smiling Again," *The San Francisco Chronicle*, July 23, 2003, p. D1.

In a controversial trend, thousands of physically and emotionally wounded people go to the arts in search of healing.

Child Faith Healing: Is It Child Abuse?

Higgins, Michael, "Boy's Death Puts Religious Exemption in Spotlight," *Chicago Tribune*, Sept. 5, 2003, News Section, p. 18.

The death of an 8-year-old autistic boy from suffocation during a prayer service has fueled a national debate over whether child-abuse laws should protect parents who choose to treat their children's illnesses with prayer.

Lofholm, Nancy, "Christian Scientists Oppose Measure," *The Denver Post*, Feb. 23, 2001, p. A22.

Christian Scientists are lobbying to retain a provision in Colorado child-abuse laws that exempts parents who are members of the faith-healing sect from liability if a sick child dies or is disabled after being treated with prayer instead of traditional medicine.

Lofholm, Nancy, "Prayed-over Girl Died of Untreated Diabetes," *The Denver Post*, Feb. 8, 2001, p. A1.

A 13-year-old girl — the daughter of members of a church that believes in prayer rather than medicine to heal the sick — dies of complications from diabetes, and a debate erupts over state legislation that would make it easier to prosecute her parents.

Mehren, Elizabeth, "Pregnant Sect Member's Case is a Rights Quandary," *Los Angeles Times*, Sept. 9, 2000, p. 1.

A pregnant woman who is part of a fundamentalist Christian sect that relies on prayer over medicine is placed in protective custody because authorities suspect the woman's other babies died when the sect failed to seek medical help.

Funding Prayer Research

Holt, Jim, "The Other National Conversation," *The New York Times*, Nov. 7, 2004, Sect. 6, p. 17.

Nearly 50 percent of Americans ask for healing from the deity they address, but scientists and religious leaders are debating whether \$2.3 million in federal funds should be used to study whether prayer can heal.

Pingree, Geoff, and Lisa Abend, "New Center to Promote Studies of Effects of Prayer," *The Christian Science Monitor*, July 9, 2004, p. 10.

In an effort to broaden scientific inquiry of prayer, a panel of leading religious figures and medical researchers announce the opening of the Office for Prayer Research, based in Missouri.

Rivera, John, "Creating a New Science of the Soul," *The Baltimore Sun*, March 31, 2003, p. 15A.

A millionaire investor turned religious philanthropist finances scientific research on the healing effects of prayer and the nature of love and forgiveness.

Healing Through Prayer

Brachear, Manya A., "Family In Mourning Wraps Itself in Ritual," *Chicago Tribune*, Aug. 16, 2004, News Section, p. 1.

Grieving relatives coping with sudden death turn to traditions of their faith — including pilgrimages to the cemetery and with constant prayer and worship — that help them accept the loss and bond together as a family.

Brachear, Manya A., "Healing Rituals Added to Yom Kippur Prayers," *Chicago Tribune*, Sept. 24, 2004, Metro Section, p. 1.

Chicago-area synagogues supplement ancient practices with modern healing rituals on Yom Kippur, the holiest day of the Jewish calendar, to aid with physical and emotional healing.

Glauber, Bill, "College's Jocks Get Prayers, Not Pills," *Chicago Tribune*, News Section, p. 1.

At a Christian Science college in Illinois, nearly half of the students play varsity sports, but the school has no doctors or training rooms, so most injuries are mended only through the practice of spiritual healing.

Kalb, Claudia, "Faith & Healing," *Newsweek*, Nov. 10, 2003, p. 44.

While the dispute over whether religion and prayer can improve health rages in journals and medical schools, more Americans ask for doctors' prayers, and more medical schools are offering "spirituality and medical care" courses.

Pool, Bob, "Responding to Prayers," *Los Angeles Times*, Sept. 4, 2004, p. B1.

A teenager who barely survived a car accident in California returns from Britain to thank the police officer who started an international prayer circle for her that spread to hundreds of people and lasted for weeks.

Szegedy-Maszak, Marianne, and Caroline Hsu, "How We Talk to God," *U.S. News & World Report*, Dec. 20, 2004, p. 55.

The importance of prayer in all religions has been well established for hundreds of years, but a survey about the focus of prayers tries to determine what people pray about and finds that people pray about nearly everything, but health is one of the most popular subjects.

Mind-Body Connection

Benson, Herbert, "Brain Check," *Newsweek*, Sept. 27, 2004, p. 44.

Modern science has found that anxiety, alienation, love and optimism can affect one's health just as clearly as obesity.

The challenge is to map the pathways linking mental states to medical ones and to learn how to travel them at will.

Deardorff, Julie, "Ancient Wisdom, Modern Science," *Chicago Tribune*, Feb. 15, 2004, Section Q, p. 1.

A controversial medical practice that is changing the face of health care, integrative medicine acknowledges the powerful link between mind and body and melds Western medicine with complementary approaches like acupuncture and massage.

Roan, Shari, "The Mind's Role Comes Into Focus," *Los Angeles Times*, Jan. 20, 2003, Part 6, p. 1.

Patients and doctors have come to better understand how the mind and emotions affect physical illness; now the American Board of Medical Specialties will decide whether to create a related subspecialty known as psychosomatic medicine.

Prescription-Free Treatments

MacGregor, Hilary, "Squeeze In a Yoga Class While You Wait For Your Prescription," *Los Angeles Times*, Dec. 27, 2004.

Integrative pharmacies are a small but growing sector trying to tap into the market of Americans curious about alternative health care — people who are as likely to try yoga or a dietary supplement as visit a traditional medical doctor or pop a prescription drug.

Payne, January, "Stopping the Hurt," *The Washington Post*, Jan. 4, 2005, p. F1.

Patients are more likely to eschew traditional prescription drugs for alternative treatments like meditation, guided imagery and breathing exercises following an influx of reports linking Vioxx, Celebrex and Aleve to potentially life-threatening side effects.

Stein, Rov, "Study Says Acupuncture Eases Arthritis Pain," *The Washington Post*, Dec. 21, 2004, p. A2.

Acupuncture alleviates pain and improves movement for elderly people suffering from arthritis in their knees, according to a federally sponsored study of 570 elderly patients, which found that those who received treatments for six months experienced modestly less pain and more agility.

Religion and Mental Health

Barry, Ellen, "From Behind Pulpit to Beside the Couch," *Los Angeles Times*, June 4, 2004, p. 1E.

In the last two decades, evangelical Protestant churches have begun opening their own clinics staffed by Christian mental health professionals.

Large, Elizabeth, "Letting Go," *The Baltimore Sun*, Dec. 26, 2004, p. 1N.

Recent scientific studies show the serious mental and physical consequences of not forgiving.

Paul, Pamela, "The Power to Uplift," *Time*, Jan. 17, 2005, p. 46.

A study of more than 1,000 articles on the relationship between religion and mental health published in academic journals between 2000 and 2002 indicates that religious people are less depressed, less anxious and better able to cope with crises than nonreligious people.

Research and Skepticism

Duenwald, Mary, "Religion and Health: New Research Revives an Old Debate," *The New York Times*, May 7, 2002, p. F5.

Dozens of scientists claim to have found evidence of links between religion and health, but a psychologist at Columbia University says a re-examination of the research finds it rife with methodological problems and statistical flaws.

Gerhardt, Pamela, "Saying a Prayer for Science," *The Washington Post*, Dec. 19, 2000, p. Z8.

A surprising number of researchers, some representing mainstream institutions and applying standard research protocols, have taken up the controversial question of the healing properties of prayer, but studies have been inconclusive.

Gottlieb, Jeff, "Journal Is Silent in Study Dispute," *Los Angeles Times*, Aug. 17, 2004, p. B1.

After one of the researchers is indicted for embezzlement and other credibility questions are raised, a medical journal refuses to withdraw a study it published asserting that women undergoing in vitro fertilization in South Korea were twice as likely to conceive when — unbeknownst to them — strangers prayed for them.

Guterman, Lila, "Lead Author Removes Name From Disputed Prayer Study," *The Chronicle of Higher Education*, Dec. 17, 2004, p. 21.

The lead author of a prayer report has removed his name from the paper about a study that supposedly proves the

power of prayer in doubling the chance of pregnancy for women seeking in vitro fertilization.

Packer-Tursman, Judy, "Alternative Health Panel Under Attack," *The Washington Post*, March 19, 2002, p. F1.

Days before the government is expected to present recommendations for maximizing the potential of unconventional medicine, critics object to the report and its inclusion of spirituality as a treatment technique.

Western Medicine and Prayer

Fackelmann, Kathleen, "The Power of Prayer," *USA Today*, July 18, 2000, p. 7D.

A family physician in Durham, N.C., curious about the role of religion in the lives of his patients releases a study suggesting that those who pray or meditate live longer.

Heredia, Christopher, "Faithful Service," *The San Francisco Chronicle*, Dec. 3, 2004, p. F1.

In her 20 years as a hospital chaplain, a California hospital's director of chaplaincy services has helped countless families with sick and dying children find strength by turning to their faith.

Lombardi, Kate, "Chaplains as Comforters and Counselors," *The New York Times*, July 20, 2003, Sect. 14, p. 1.

While a hospital's doctors work on the physical, chaplains work on the spiritual, and many chaplains say if patients feel connected to a higher power, they recover more easily from illness or trauma.

Sheeran, Thomas, "When Doctor, Patient Pray," *Chicago Tribune*, Feb. 25, 2000, Metro Section, p. 8.

Medical residents and students at the Cleveland Clinic and Case Western Reserve University are learning to add a dose of spirituality to treatment, gingerly approaching the subject of faith as a healing tool.

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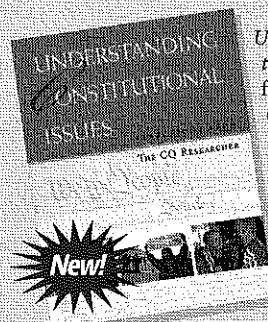
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