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Spirituality's rising role in medicine stirs debate

Science and religion straddle disparate worlds, periodically creating tense standoffs—as in the recent disputes about intelligent design and the Dalai Lama's lecture at a large neuroscience meeting. Amidst those debates, some researchers are posing the contentious question: is spirituality good for health?

Driven by a surging public interest in matters of faith, research on the effect of prayer and other spiritual practices on addiction, recovery from illness and the ability to cope with stress has been steadily increasing. "There has been a growing attempt to reclaim a place for the divine in the modern world using the methodologies of the sciences," says Anne Harrington, a Harvard University science historian.

But many scientists say a broad, subjective concept like spirituality cannot—and should not—be linked to science.

In a survey of more than 31,000 Americans released last year by the US National Center for Complementary and Alternative Medicine (NCCAM), 36% said they use some form of alternative medicine including herbs, special diets and practices such as yoga. When the survey included the number of people who pray specifically for health—their own or that of others—the number jumped to 62%.

The results underscore the need to study the effect of these practices on health, says Catherine Stoney, an NCCAM program officer for mind-body medicine. Last year, the agency gave out about \$880,000 of its \$117.7 million budget in grants for research on prayer, spirituality and 'distant healing'—the practice of praying for another person's health, with or without the latter's knowledge.

Among these studies is a University of Cincinnati project that links the will to live to aspects of spirituality in 350 individuals with HIV/AIDS. Another, at New York's Memorial Sloan-Kettering Cancer Center, is investigating a relationship between spiritual wellbeing and levels of interleukin-6, an immune system protein associated with depression, in individuals with pancreatic cancer.

The bulk of funding, however, comes from private groups such as the Michigan-based Fetzer Institute and the John Templeton Foundation in Pennsylvania, which has poured more than \$31

million since 1987 into research on the topic.

Particularly controversial have been studies of distant, or 'intercessory' prayer, a research trend that began in the late 1980s. In a study reported in July, for instance, researchers at Duke University recruited 748 people undergoing heart-related procedures and split them into two arbitrary groups. The scientists randomly assigned groups of Christians, Muslims, Jews and Buddhists to pray for only one of the study groups. The results showed that prayer had no effect on whether people experienced postoperation complications such as heart attacks, hospital readmissions or death (*Lancet* 366, 211–217; 2005).



Unholy alliance: Most studies of prayer's effects on health are poorly designed, critics say.

Parsing out the effects of spiritual practice in a research study is far from easy. Researchers have struggled to differentiate between the health effects of faith and other variables such as behavioral risk factors and socioeconomic issues. Scientists also lack clear definitions and standardized questions that would allow them to compare different spiritual practices and populations. "Many who are interested in studying these issues don't design studies that are in fact scientifically rigorous," says William Breitbart, chief of psychiatry at Memorial Sloan-Kettering.

But in an increasingly scientific world, it is particularly important to pinpoint the biological basis of any health benefits spiritual practice might have, notes Herbert Benson, president of the Mind/Body Medical Institute in Massachusetts. Benson was one of the first scientists to suggest more than 30 years ago that meditation can trigger physiological changes. "We are just coming up with scientific language

for what people have been doing for millennia," says Benson. "I think it's a convergence of stress-related illnesses with the stresses of our world, coupled with the fact that people are not always helped by drugs and surgery."

Harold Koenig, a psychiatrist and co-director of Duke University's Center for Spirituality, Theology and Health, says religious folk are prone to having lower blood pressure, fewer strokes, stronger immune systems and sometimes longer lives because their faith is likely to keep them from unhealthy behaviors. "Doctors need to realize that religion is a factor in health, not only for coping but through social, behavioral and psychological mechanisms," he says.

So many sick people turn to religion for comfort and guidance, Koenig says, that physicians should also consider collecting spiritual histories of their patients before pursuing a treatment path. If patients express the need, doctors could even go so far as to pray with their patients. "Probably saying a 30-second prayer at a key moment has done more good than any psychotherapy or drugs I've prescribed," he says.

But if physicians begin delving into spirituality, it might pull them away from discussing critical topics such as smoking and exercise, notes Richard Sloan, professor of behavioral medicine at Columbia University. Ethical concerns also arise when doctors tread into personal matters. For example, epidemiological studies indicate that marital status might be related to better health but, Sloan says, "we don't expect doctors to recommend to their single patients: 'hey Bob, time to go out and find yourself a wife.'"

The bulk of distance-healing science is flawed, researchers say, because it does not address questions such as how to measure prayer, how long a prayer should last and how to define devotion. Still, NCCAM is funding at least two such projects, including one that measures the power of distant healing on glioblastoma treatment. "It's outrageous that [NCCAM] is spending this money," says Sloan. "It's all happening due to this wave of fundamentalism sweeping the country."

Judging from history, however, the interest in spirituality might only be temporary, Sloan adds, "but the problem till then is the damage to medicine."

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