On Assessing Prayer, Faith, and Health

Hats off to Sandra Elfring, Darla Olson, and Leanne Van Dyk for their thoughtful responses to my essay, and for being such good sports in making their predictions of the outcome of the Harvard Prayer Experiment. According to my tally, Darla Olson predicts there will be a demonstrably positive clinical result of the experimental prayers, while Leanne Van Dyk joins me in expecting not (as I infer Sandra Elfring does as well).

All of us agree on many things. We all root our lives in a leap of faith—believing and hoping that God exists, cares about us individually, and will ultimately redeem our suffering and death. We all feel discomfort at putting prayer (and God) to the test. We all see prayer as, in Van Dyk's words, "fundamentally an act of worship, an expression of dependence and relatedness to God, a creaturely orientation to Creator, Redeemer, and Sustainer." (Gregg Mast describes this relatedness as "a conversation with the Almighty about the joys and concerns of our days. It is like the walk two disciples shared with Jesus from Jerusalem to Emmaus." ) And we all find the prayer experiments reflecting what Van Dyk calls a "meager, pinched view of who God is, how God acts, and what God wills."

But differences are the spice of life, and exploring differences provides opportunities to enlarge—to ever-reform—our own understanding. So where do we differ?

Sandra Elfring speaks for many people of faith in finding stories and anecdotes to be compelling evidence that distant intercessory prayer changes reality. Stories are important—indeed essential—for making truth live. As master teacher, Jesus offered vivid parables that embodied truths in simple stories. Stories also persuade. The Jaws movies gave many swimmers a fear of sharks that no dry statistics on shark attack probability could reverse.

Although compelling, stories and anecdotes do not determine empirical truth. If stories of people being healed or changed by others' prayers are evidence of prayer's clinical effectiveness, then what is suggested by other stories—some offered by my respondents—of people getting worse, even dying, following ardent prayers for their recovery? That prayer harms?

Stories and anecdotes can also mislead. Vivid, memorable anecdotes of plane crashes leave many people—44 percent according to one Gallup survey—feeling fearful of air travel, yet hardly anxious when getting into their cars. As I write, the catastrophic crash of EgyptAir Flight 990 dominates the news. Yet statistical reality, not vivid events, tells the truth. Mile for mile, U.S. travelers during the 1980s were twenty-six times more likely to die in a car crash than on
a commercial flight. For most air travelers, the most dangerous part of the journey is the drive to the airport. When a friend tells me of revising her will before flying, I cannot resist saying, "Much better to have done so before you drove to Kansas."

Amazing stories of extra-sensory perception (ESP) similarly lead many people to believe in the paranormal. But are there people—any people anywhere—who can actually foresee the future, discern the contents of a sealed envelope, or mentally influence the role of a die? Again, the nature of the claim invites scientific scrutiny. Experiments have yet to find anyone who, when put to controlled test, can do so. A one million dollar prize, toward which I have joined many others in pledging one thousand dollars to the first people who can demonstrate any such supernatural ability, remains unclaimed. Humans, it seems, are finite creatures, not demigods.

ESP proponents have long made empirical claims and even founded a science—parapsychology—in search of the elusive ESP effect. Yet their frequent response to the absence of evidence (which accumulates into evidence of absence) is to say that ESP, like the earthquakes and prayers that Darla Olson discusses, is too fragile, elusive, and unpredictable to bottle up in an experiment. Well, then, why does not the presumed psychic go to Atlantic City craps tables (where the house skims but 1.5 percent of monies bet) and wait to bet until the premonitions come, unbidden. If they do, even a slight prophetic or telekinetic gift should, over time, glean more money for oneself or for charity than the house usually makes. Yet night after night the gambling houses continue to cream their 1.5 percent.

Can we, in all honesty, resist extending the assessment of testable claims to the claim that distant prayer causes healings? The only rational way to sift evidence (for those interested in evaluating claims of prayer's clinical effectiveness) is systematically to assess whether, other things being equal, prayed-for people outlive or out-thrive those not receiving the benefit of such prayer. For various reasons, none of us may be keen on such experiments, but they are—for those hungering for proof—the only credible way to get it.

The common claim is "we pray, and God hears and responds." If that happens, even occasionally, we should be able to detect the effect, should we not? If not, why not? Darla Olson is skeptical of designing an experiment "in such a way that God cannot affect its outcome." Van Dyk appears to agree. The variables are, she says, "too numerous and too complex for accurate measurement." But no, the experiments are not complex. Random assignment to prayer or no-prayer conditions equalizes all the other variables, save for the single prayer variable.

Van Dyk would, nevertheless, "rejoice" if convincing evidence were to emerge of "medical improvement in prayed-for people." So let me give her some cause for rejoicing. While she was preparing her response to my essay, a new "randomized, controlled trial of the effects of remote, intercessory prayer on outcomes in patients admitted to the coronary care unit" appeared in the *Archives*
In this study, 990 patients admitted to the Mid-American Heart Institute at St. Luke's Hospital in Kansas City were randomly divided into two groups. One group did not have anyone assigned to pray for them. In the other group, community volunteers offered four weeks of daily prayers for an uncomplicated, speedy recovery. None of the patients had knowledge of the experiment, but all had previously indicated their belief in God and God's responsiveness to prayers for healing. So it was believers in the power of prayer beseeching God on behalf of fellow believers.

The result: Length of stay in the coronary unit and in the hospital were unaffected by the prayer treatment, as were various specific complications such as cardiac arrest, hypertension, and pneumonia. However, the prayed-for patients did suffer about 10 percent fewer complications overall—a result that just reached a conventional standard for assessing statistical significance.

Rejoice? Not if we compare this small-time prayer effect with the big-time drug effects in other cardiac care studies. Should our conclusion be that prayer is—if this result were to prove reliable—slightly effective, but that this God effect (if that is what it is) is minuscule compared to certain other medical treatments? Or would this radically misconceive how God, as the sustainer and upholder and creator of all good things, relates to the creation? If so, might the prayer experiments helpfully prompt our stepping back and revisiting our theology of God's creative and redemptive activity?

Having played the devil's advocate, let me now shift to angel advocate by affirming faith's positive influences. Sigmund Freud long ago argued that religion is emotionally toxic. He called religion a sickness—an "obsessional neurosis"—that leads people to live sexually repressed, uptight, and therefore unhappy lives. As I document in The Pursuit of Happiness (Avon, 1993), the evidence is dramatically opposite to Freud's presumptions. People who are active in faith communities are noticeably happier than those who are not. Among the nearly 35,000 Americans randomly sampled by the University of Chicago's National Opinion Research Center since 1972, 28 percent of those who never attend church declared themselves "very happy," as did 39 percent of those attending weekly and 47 percent of those attending more often than weekly. Other lines of evidence confirm that religion is more often associated with joy and effective coping than with misery and hopelessness.

Others have argued that religion, by fomenting judgmentalism, hypocrisy, and self-righteousness, is socially toxic. As I document in The American Paradox: Spiritual Hunger in an Age of Plenty (Yale University Press, March, 2000), the evidence is also dramatically opposite to this presumption. By various measures, people of an active faith are more moral, more purposeful, and more compassionate (much more generous with their time and money). Such evidence does little to establish the truth of Christian claims—apologetics must come from elsewhere—but it does discount allegations that religion corrodes human well-being.
Darla Olson also points us to new research "indicating the benefits of 'religious involvement' to health." I must say, the faithful skeptic in me is impressed by this new line of research, which I document in the forthcoming sixth edition of my introductory psychology text. If prayer is clinically effective, then people of faith (who presumably would be people who pray) should live healthier and longer than others. Guess what: the evidence is now overwhelming—they do. But why? Here is how I anticipate presenting and interpreting the research for my secular audience of psychology professors and their students:

* * * * *

Throughout history, humans have suffered ills and sought healing. In response, the two healing traditions—religion and medicine—historically have joined hands in care of the sick. Religious and healing efforts were often conducted by the same person; the priest was also the healer. Maimonides was a twelfth-century rabbi and a renowned physician. Hospitals were first established in monasteries, then spread by missionaries.

As medical science matured, however, healing and religion diverged. Rather than simply asking God to spare their children from smallpox, people began vaccinating them. Rather than seeking a spiritual healer when burning with bacterial fever, they turned to antibiotics.

This wall between faith and medicine is now breaking down again. Since 1995, Harvard Medical School has annually attracted nearly two thousand health professionals from across North America to its conferences on "Spirituality and Healing in Medicine." Duke University has established a Center for the Study of Religion/Spirituality and Health. In 1999, 61 of America's 126 medical schools were offering spirituality and health courses, up from 3 in 1994. New books such as The Faith Factor (Viking, 1998), The Healing Power of Faith (Simon & Schuster, 1999), and Religion and Health (Oxford University Press, 2000) are appearing. Detecting a renewed convergence of religion and medicine, Time magazine devoted a cover story to "Faith and Healing." A Yankelovich survey found 94 percent of HMO professionals and 99 percent of family physicians agreeing that "personal prayer, meditation, or other spiritual and religious practices" can boost medical treatment.

Is there fire underneath all this smoke? Do religion and spirituality actually relate to health, as polls show four in five Americans believe? More than a thousand studies have sought to correlate "the faith factor" with health and healing. Consider two:

• Jeremy Kark and his colleagues compared the death rates for 3,900 Israelis either in one of eleven religiously orthodox or in one of eleven matched, nonreligious collective settlements (kibbutz communities). The researchers reported that over a sixteen-year period, "belonging to a religious collective was associated with a strong protective effect" not explained by age or economic differences: In every age group, those belonging to the religious
communities were about half as likely as their nonreligious counterparts to have died. This is roughly comparable to the gender difference in mortality. (In every age group, sixty-four British and sixty American women die for every one hundred men.)

- An earlier study of 91,909 persons in one Maryland county found that those who attended religious services weekly were less likely to die during the study period than those who did not—53 percent less from coronary disease, 53 percent less due to suicide, and 74 percent less from cirrhosis.6

In response to such findings, Richard Sloan and his skeptical colleagues7 remind us that mere correlations can leave many factors uncontrolled. Consider one obvious possibility: Women are more religiously active than men, and women outlive men. So perhaps religious involvement is merely an expression of the gender effect on longevity.

However, several new studies find the religiosity-longevity correlation among men alone, and even more strongly among women.8 One study that followed 5,286 Californians over twenty-eight years found frequent religious attendees 36 percent less likely to have died in any year after controlling for age, gender, ethnicity, and education. Another followed 3,968 elderly North Carolinians for six years. It found that 23 percent of those attending religious services at least weekly had died, as had 37 percent of infrequent attendees.9 A "National Health Interview Survey" followed 21,204 people over eight years. After controlling for age, sex, race, and region, nonattenders were 1.87 times more likely to have died than were those attending more than weekly.10 This translated into a life expectancy at age twenty of eighty-three years for frequent attenders and seventy-five years for infrequent attenders.

**Religious attendance and life expectancy:** In a national health survey financed by the Centers for Disease Control and Prevention, religiously active people had longer life expectancies.
These correlational findings do not indicate that if nonattenders start attending, and change nothing else, they will live eight years longer. But they do indicate that as a predictor of health and longevity, religious involvement rivals not smoking. Such findings demand explanation. Alert readers may imagine "intervening variables" that could account for the correlation.

First, in all the available studies, the beliefs of religiously active people motivate healthier life-styles; for example, they smoke and drink less. Health-oriented, vegetarian Seventh Day Adventists have a longer-than-usual life expectancy. Religiously orthodox Israelis eat less fat than their nonreligious compatriots. But such differences are not great enough to explain the dramatically reduced mortality in the religious kibbutzim, argued the Israeli researchers. In the recent American studies, too, about 75 percent longevity difference remains after controlling for unhealthy behaviors such as inactivity and smoking.

Social support is another variable that helps explain the "faith factor." For Judaism, Christianity, and Islam, faith is not solo spirituality but a communal experience that helps satisfy the need to belong. The more than 350,000 faith communities in North America and the millions more elsewhere provide support networks for their active participants—people who are there for one another when stress strikes. Moreover, religion encourages another predictor of health and longevity—marriage. In the religious kibbutzim, for example, divorce is almost nonexistent.

But even after controlling for gender, unhealthy behaviors, social ties, and preexisting health problems, the mortality studies find much of the mortality reduction remaining. Researchers therefore speculate that a third set of intervening variables is the stress protection and enhanced well-being associated with a coherent worldview, a sense of hope for the long-term future, feelings of ultimate acceptance, and the relaxed meditation of prayer or Sabbath observance. Such might also help to explain other recent findings, such as healthier immune functioning and fewer hospital admissions among religiously active people.

The following chart provides suggested explanations for the correlation between religious involvement and health/longevity: This analysis neither proves that religion is true nor explains it away. A hurricane is not what is left after controlling for the influence of wind, rain, and tidal surge; it is all those things and more. The religious factor, too, is multidimensional.
Healthy behaviors
(less smoking, drinking)

Social Support
(faith, communities, marriage)

Health
(less immune suppression, stress hormones and suicide)

Positive emotions, hope/optimism
(less stress, anxiety)

Although the religion-health correlation is yet to be fully explained, Harold Pincus, deputy medical director of the American Psychiatric Association, believes these finds "have made clear that anyone involved in providing health care services . . . cannot ignore . . . the important connections between spirituality, religion, and health."\(^{14}\)

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So, when testable claims are made, do not be surprised if scientists put those claims to the test and then let the chips fall where they may. Many important beliefs are not testable (that God exists and loves us) but some are (that distant prayer produces healings and spares lives). A mountain of new research indicates that an active faith is indeed linked with personal happiness, social welfare, and health and longevity. Is prayer clinically effective—and potently so? Or does thinking so defy human experience, biblical ideas about God and creation, and the results to come? Stay tuned. The debate has only begun.

ENDNOTES

1 Gregg Mast, "Is It Fair to Pray for Some People by Name?" Church Herald, LVI (October, 1999), 25.
2 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, 159 (1999), 2273-2278.


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