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Faith, Hope, and Optimism

Heloise, in her mid-forties, had taught high school French in a small Midwestern town for over twenty years. She had a devoted husband and a son who had just finished college. She was a mover and shaker in her community, serving on several boards. She was a pious Christian, extremely active in the Episcopal church. Her family was healthy and well-to-do, and she was contented. Heloise, her friends all said, led a charmed life. Then, suddenly, things began to crumble.

In less than a year, one tragedy after another befell her family. Heloise was diagnosed with multiple sclerosis. The symptoms became so bad that she had to stop working. Her husband's business went bankrupt, and he committed suicide. Her son overdosed on drugs, and entered a residential rehab program. Heloise's mother, who lived in England, died after a brief battle with cancer.

Heloise's friends rallied around her, but she assured them that she was all right. By all indications, she indeed was in remarkable spirits. While initially burdened by the sad events in her family, she quickly adjusted after each tragedy and did her best to ensure that life returned to normal. No one ever heard her complain or recount her litany of troubles, as so many people do. She continued with her volunteer activities for the church, as much as her disability allowed, and maintained her board service to several community organizations. She also added new activities, like visiting homebound members of her church and praying with them. It was what Christ would do, she said.

Heloise's continued activity and chin-up attitude in the face of overwhelming trials began to concern some of her friends. They thought she might be in denial. Her doctor, too, was worried at first, and referred her to a mental health specialist for a thorough workup. Yet, despite an almost textbook array of risk factors for emotional distress—disabling illness, widowhood and other family tragedies, loss of employment, sudden decline in financial status, and family history of mental illness and

institutionalization on her father's side—Heloise had no clinical signs or symptoms of distress. It hardly seemed possible.

Nearly a decade later, things are about the same. Heloise is limited in her physical activity, but not nearly as much as would be expected. She has spent long periods of time in bed, but is currently on her feet, and by her own account, doing well. This is a good thing, she says, as she has a lot to do.

Heloise has a saying that she is fond of repeating: As long as you are faithful to God, God will be faithful to you. She tells anyone who asks that she is grateful to God for her many blessings, and too busy to dwell on her troubles. Heloise is fond of quoting a verse from the prophet Isaiah: "No weapon that is formed against thee shall prosper" (Isaiah 54:17). She remains an inspiration to her friends and somewhat of a mystery to her doctor.

Religion influences health in many ways. As we have seen, affiliation with a religion can affect how we behave in regard to health, organized religious participation provides fellowship and support, regular worship and prayer stimulate positive emotions, and religious beliefs may reinforce certain psychological characteristics or health beliefs. In turn, considerable research has shown that our behavior, social relationships, emotions, personalities, and beliefs are powerful determinants of health. Each of these links between religion and health is well known and well accepted by scientists. The possibility of a religion-health connection is not as controversial as it might at first seem, as it can be understood in terms of concepts and theories widely accepted by scientists and physicians.

Such a connection makes sense because of the influence of faith on action—because faith typically gets translated into religious affiliation, attendance, worship, and belief. A study showing, for example, lower rates of trichinosis among Jews makes sense because, on average, Jewish faith is more likely to lead to avoidance of pork. These are the obvious health effects of faith. But what about faith alone—simple heartfelt trust in God or a higher force, or the profession of religiousness—irrespective of whether it motivates further spiritual involvement? Can this type of religious expression in and of itself influence our health and well-being?

The idea that religious faith may be a powerful force for healing and for maintaining health and preventing illness is not new. In

1910, Sir William Osler, one of the founding fathers of modern scientific medicine, published an essay in the *British Medical Journal* describing "the faith that heals." The theme was revisited in 1975 by the renowned psychiatrist Dr. Jerome D. Frank. Writing in the *Johns Hopkins Medical Journal*, Dr. Frank noted that not only is faith in God salutary, but faith in one's physician or in medical science may also contribute to the success of medical interventions. Indeed it may not be just the physician's treatments themselves that are responsible for positive results. Rather, according to Dr. Frank, medical treatment may be successful principally because it serves to "mobilize the faith that heals in the patients."

Is There a "Faith Factor" in Health?

If faith can heal, can it also protect against illness and promote health and well-being? That is, are there preventive as well as therapeutic consequences of faith? Is faith an epidemiologically significant factor?

According to Dr. Dale A. Matthews, an internist on the faculty of Georgetown University School of Medicine, faith in God indeed seems to be beneficial for physical and mental health. In his recent book, *The Faith Factor*, Dr. Matthews marshals evidence suggesting that expressions of faith are associated not only with the healing of physical and emotional problems and addictions, but with improved quality of life. This makes sense, he notes, because of the positive functions of faith known to be associated with well-being. These include instilling trust in God and providing a source of ultimate hope.

Studies suggest that it is not just formal professions of faith in God that are beneficial for our general well-being. Simply affirming that one is religious or spiritual is a strong and surprisingly consistent determinant of physical and mental health. Many studies address the issue of religious faith by asking people to rate their level of overall religiousness—to provide a subjective assessment of how religious or spiritual they consider themselves. Response options typically include three or four categories such as "not at all," "somewhat," "fairly," and "very," although the exact wording varies.

According to the late Dr. E. Mansell Pattison of the University of California, Irvine, this question provides a unique psychodynamic perspective on a person's spiritual life that is not attainable through other approaches to spiritual assessment. Questions about religious affiliation and church or synagogue attendance, for example, provide information about observable public behavior. Questions about the content of prayers and patterns of religious devotion elicit information about private experiences unique to each individual. What these types of questions have in common is that both involve the assessment of how or how often people *do* religion.

Information about what has come to be known as "subjective religiousness," however, provides a glimpse into how religious people perceive themselves to *be*. Answers to this type of question provide a summary of the myriad intrapsychic determinations that we make about our faith. These determinations are uniquely our own. Researchers recognize that "How religious are you?" is a question that each of us answers in our own way and for our own reasons. Yet no matter how differently each of us goes about answering such a question, nearly all of us can instinctively provide an answer. For this reason, scientists like to use this question as a quick, summary gauge of people's level of overall faith—just as self-ratings of health are considered the easiest and most reliable way to summarize the complex issue of health status.

Subjective Religiousness: A Resource for Mental Health

Using subjective religiousness as a marker for the strength of one's faith, research has produced quite a bit of evidence that demonstrates benefits for psychological well-being. According to several studies I and my colleagues conducted, there is indeed a faith factor in mental health.

Utilizing the National Survey of Black Americans sample, we examined the effects of subjective religiousness, which had been assessed by three questions. One was, "How religious would you say you are," which was scored in the usual fashion; the other two questions asked respondents to rate the importance of religion in a

couple of ways. Results: the more religious people felt they were and the greater the importance they attached to religion, the greater their psychological well-being. Moreover, not only was this a strong determinant of well-being—it was a *stronger* determinant than age and even health.

With the recent availability of longitudinal data from the NSBA, we had an opportunity to reexamine these findings. As described earlier, longitudinal data trace the effects of a particular factor over time, enabling epidemiologists to determine cause and effect better than they can through cross-sectional surveys. In this new study, we examined the effects of subjective religiousness on several measures of well-being, and also on a highly regarded measure of psychological distress, the RAND Mental Health Index.

Greater subjective religiousness was once again associated with greater well-being. People who rated themselves as more religious had greater life satisfaction and happiness, as well as fewer symptoms of depression. Greater religiousness, as measured in the first study wave, led to both greater life satisfaction and greater happiness *over a decade later*. These effects, persisting for many years, are similar to the results we saw in Chapter 2 of organized religious participation. This study showed that being or feeling religious—not just practicing religion—has protective effects that last far into the future.

Results of these studies are consistent and persuasive: more faith, more well-being. Findings are limited, though, to African Americans. We have studied members of another ethnic group, Mexican Americans from Texas, with remarkably similar results. In one study, we assessed subjective religiousness with three response options: "not at all," "not very or somewhat," and "very." More religious people had greater life satisfaction, even after controlling for their health.

In another study, among young men, greater religiousness was associated with less disability. Among their grandfathers, results were just the opposite: there was more disability among the more strongly religious. This actually makes sense. Among older folks, internal appraisals of the strength of one's faith increase in compensation for age-related declines in ability—declines that may, on average, curtail

regular participation in organized religious activities. This would result in an inverse association with health. In younger folks, who on average have not experienced as many functional limitations, a positive association between religiousness and health reflects the ostensibly preventive or protective function of faith.

Multiethnic Findings from National Studies

Having identified a protective effect of subjective religiousness among African Americans and Mexican Americans, my colleagues and I were curious whether this finding was specific to members of ethnic minority populations. Both groups are relatively homogeneous, in terms of categories of religious affiliation. Over two-thirds of African Americans are either Baptists or Methodists, and over 80 percent of Mexican Americans are Roman Catholics. On average, their socioeconomic status and access to health care are similar. It could be that the health effects of religious faith are in some way a function of these groups' special circumstances. We decided to replicate our analyses in a more heterogeneous, multiethnic study setting.

Using data from three large, nationally representative studies, we investigated the impact of subjective religiousness on both health and well-being. The exact wording and response categories differed across study samples, but the concepts (health and well-being) were equivalent. In each study, people were asked to rate their religiousness. Solid evidence emerged for religious effects on both health and well-being in two of the study samples.

In the Quality of American Life study of more than 1,000 adults, people who rated themselves as more religious had better health, as assessed by physical functioning, subjective health, satisfaction with health, and presence of health problems. In the Americans' Changing Lives study of over 1,500 adults, more religious people had greater life satisfaction.

Dr. Ellison and I are currently conducting another multisample study, using data from several large regional, national, and international health studies. Our goal is to systematically map the effects of

subjective religiousness and other religious dimensions on psychological well-being. This work is not yet complete and results have not yet been submitted for peer-review, so what follows must be taken as tentative. Analyses for one of the major samples are final, however, and results are consistent with our earlier findings.

Using data on more than 1,500 adult Americans collected for the multinational World Values Survey, we examined effects of subjective religiousness, assessed by asking people to affirm being "a religious person," "not a religious person," or "a convinced atheist." This very simple question has the advantage of being straightforward and to the point. So were our results. Those who were more religious reported greater life satisfaction, greater happiness, had a more positive outlook, were less depressed, and had a higher level of emotional balance.

Spirituality and the Importance of Faith

We have found less evidence supporting a salutary role of simple faith in preventing physical illness or in promoting better physical health. This could be due to the types of study populations that we have investigated and the samples that we have used. Other scientists who have explored this issue in different settings using different types of religious measures have been more successful in establishing a connection between faith and physical health.

Several studies have used an interesting measure known as the INSPIRIT scale. This instrument was designed specifically to assess spirituality in clinical settings. According to its developers at Harvard Medical School, the INSPIRIT measures the elements of spirituality, including "a cognitive appraisal . . . which [results] in a personal conviction of God's existence (or of some form of Higher Power as defined by the person)" and "the perception of a highly internalized relationship between God and the person (i.e., God dwells within and a corresponding feeling of closeness to God)." These constitute a good operational definition of faith, and seem to tap the concept more directly than does asking people to rate how religious they consider themselves.

A study using a random sample of more than 400 family practice patients from Georgia investigated the effect of spirituality, assessed by the INSPIRIT, on an index of overall health. High scores on both were strongly related. Further, when INSPIRIT scores were broken into high-, medium-, and low-spirituality groups, the greatest level of physical pain was found in the low-spirituality group and the least pain in the high-spirituality group.

The original study that developed and validated the INSPIRIT also provided evidence of a connection between faith and health. Investigators were interested in learning whether a currently high level of spirituality exerted a protective effect against frequent physical symptoms ten weeks later.

More than 80 patients at Harvard's behavioral medicine clinic were given both the INSPIRIT and the Medical Symptom Checklist, an inventory of twenty-five symptoms associated with stress-related disorders. Spirituality indeed was a strong determinant of fewer subsequent symptoms, even controlling for patients' symptom level at the beginning of the study. Because these were longitudinal data, we can conclude that spirituality exerts a truly protective effect over time.

Blood Pressure and Strength of Faith

Another way to address strength of faith is by asking people to rate the importance of their religious beliefs, their relationship to God, their religion, or their spiritual life in general. This is a common way to assess religiousness in sociological studies, but it is rarely used in health research. Like subjective religiousness, the INSPIRIT, and similar measures, it nicely taps into the "being" rather than "doing" component of religion. Does placing more importance on religion have implications for health?

Researchers from Duke University and the University of North Carolina, directed by Dr. David B. Larson, studied more than 400 men from Evans County, Georgia, who had been asked, "Quite aside from church going, how important in general would you say religion is to you?" Response options were "very," "somewhat," and "not at all." Affirming the importance of religion prevented high

blood pressure. Those who said religion was somewhat or not at all important had an average diastolic blood pressure of 87.2 mmHg. Those who said religion was very important had an average reading of 84.0 mmHg.

In this study, Dr. Larson and his colleagues conducted another especially interesting analysis. They were interested in whether the subjective importance of religion "interacted" with attendance at church services. This methodological term refers to something like a synergism. In other words, the investigators wondered, did strong faith increase the already well-known protective effect of church attendance for blood pressure?

Results compellingly showed that it did. Those who did not feel that religion was important *and* infrequently attended church had the highest average diastolic blood pressure (88.2 mmHg). Those who did not feel that religion was important *but* who nonetheless attended church regularly had a somewhat lower diastolic blood pressure (85.0 mmHg). Those who attended church regularly *and* said that religion was important had a still lower reading (83.8 mmHg). These fascinating results raise the tantalizing possibility that whatever the beneficial health effects of organized religious participation, a high level of subjective religious faith makes them even more pronounced.

Faith, Functioning, and Survival

Other researchers have investigated the health effects of faith as assessed by subjective ratings of religiousness. Their studies, too, show that professing faith has implications for health, and they include evidence of a faith factor in relation to "hard" measures of physical health: longevity, survival after surgery, and prevalence of chronic conditions and functional disability.

Scientists at Harvard and Yale investigated the protective effects of religiousness on death rates over a two-year period in an NIH-funded study of nearly 400 older adults living in Connecticut. Subjective religiousness was assessed as usual, combined into a scale with faith as a source of strength and comfort and attendance at religious services. Because the latter question was included, this is not

a pure measure of the "being" dimension of religion, as in the other studies discussed in this chapter. However, the inclusion of the first two questions definitely weighted scores on this scale in such a way that valuable information on the health effects of faith can still be inferred.

Among those healthy at the onset of study, religiousness did not make a difference for longevity. Because they were in good health, their death rate was so low to begin with that it was unlikely that any additional factors would lower it even further. Among those ill at onset, a different picture emerged. In sick men who were not religious, the death rate over the course of the study was 42 percent. In sick men who were religious, deaths were fewer by over half—just 19 percent. In women, results were similar: death rates of 20 percent versus 11 percent. Investigators also examined the religious variables separately; each increased the odds of survival. Religious attendance had the smallest effect, leading the researchers to conclude that it is "unlikely that the benefits of religiousness are predominantly due to the social contacts associated with church attendance."

These results were confirmed in a clinical study at Dartmouth using a sample of more than 200 postsurgical cardiac patients. The same measures were used as in the Connecticut study. Deaths in a six-month follow-up period after open-heart surgery were 11 percent in patients who considered themselves "not at all," "slightly," or "fairly" religious. In those who were "deeply" religious, the death rate was *zero*. Not a single religious patient died. As in the Connecticut study, religious attendance offered significant protection as well, reducing mortality from 12 to 5 percent, but not as dramatically as simply being religious. Religious fellowship by itself is a salient protective factor against illness, as we saw in Chapter 2. But when it comes to one's spiritual life, meaning it from the heart is the best protection of all.

A classic study by Dr. Ellen L. Idler, a medical sociologist at Rutgers University, found that the faith factor works in part by buffering the ill effects of stressful or challenging health circumstances. Dr. Idler is one of the pioneering figures in the field of religion and health. In a study of 2,700 adults from New Haven,

Connecticut, she offered persuasive evidence for two interesting and related effects of religion. First, considering one's faith as a source of great comfort helps to lessen the harmful effects of chronic illness on disability. Second, affirming religiousness reduces the harmful effects of disability on mental health.

According to these studies, strong religious faith matters when it comes to physical and mental health. Research by my colleagues and I has pointed to protective effects against psychological distress, and other investigators have underscored the benefits of faith for health. As we have seen, this positive effect is not limited to one particular ethnic group or population. It also does not matter precisely how faith is defined. Whether we consider self-appraisals of overall religiousness, reports of the importance of one's faith or religion, or summaries of how much spirituality one experiences, the results seem to be the same.

Links in a Chain: *Religious Faith→Positive Expectations→Health*

What does faith do for a person? Does faith instill a certain mindset? A perspective about one's life or place in the world? Are people with more faith better equipped in some way to meet challenges without succumbing to stress? To resist the disease-enducing effects of certain exposures or risk factors? Are there particular thought patterns or mental processes associated with faith that are beneficial for health and well-being?

I believe all these questions can be answered affirmatively. I propose that faith benefits physical and mental health specifically by promoting hope, optimism, and positive expectations. These cognitions are, by definition, functions of faith. They in turn influence our health and well-being.

Considerable research in the field of health psychology has explored the healthy effects of such concepts as learned optimism, positive illusions, hope, and positive mental attitudes. This work reveals that our thoughts and attitudes, whether factually true or not, exert a powerful impact on our lives. They influence how we perceive ourselves, function in the world, and feel, emotionally and physically.

In epidemiologic terms, they work to prevent morbidity, diminish negative effects of stress, and aid in recovery from illness.

What Is Hope and How Does It Work?

The implications of simple faith for health and illness are intriguing. Whether or not God or the spiritual dimension is objectively real or true, and regardless of one's religious affiliation, attendance, worship, or belief, merely thinking or affirming that one is religious or spiritual, or simply having faith or trust in God, a higher power, or the tenets of a religion, may benefit our health and well-being. The reason is that religious faith can produce hope.

According to Dr. C. R. Synder, clinical psychologist at the University of Kansas and editor of the *Journal of Social and Clinical Psychology*, hope traditionally has been conceived of by psychologists as a positive expectation. Hopeful thought, in particular, has three components. Dr. Synder calls them "goals," "pathways," and "agency."

> Goals are the targets of mental action sequences. . . . Goals may be short- or long-term, but they need to be of sufficient value to occupy thought. Also, goals must be attainable, yet contain some uncertainty.
>
> To reach such goals, people need to imagine routes to the desired endpoints. Pathway thinking reflects the person's perceived ability to generate plausible routes to goals (with affirming self-talk messages with some variant of "I'll find a way to get this done!").
>
> A motivational component—agency—is needed to propel people along their imagined routes to goals. Agency reflects the belief that one can initiate *and* sustain movement along the imagined pathways to goals.

Dr. Snyder has described in great detail how goals, pathways, and agency interact to lead people to attach value to desired outcomes. When it all comes together—when we are occupied with a goal that we deem important, we believe that we will find a way to reach it,

and we believe that we will be successful in accomplishing it—then we can be said to have hope.

The consequences of hope for well-being are significant. Dr. Synder points to studies suggesting that greater hope is associated with less depression, avoidance of behaviors that prolong recovery from illness, less physical pain in response to stress, and greater health-related knowledge. Any resource that can provide hope merits its consideration as a potentially protective factor against physical and emotional illness. One such resource is religious faith.

Faith Breeds Hope

Dr. Harold G. Koenig, Duke psychiatrist and researcher, has outlined precisely how faith promotes hope. Especially among older adults and those who are suffering from health challenges or are at risk of becoming ill, religious faith "provides a mechanism by which attitudes can be changed and life circumstances reframed." Moreover, "The degree of hope and emotional strength afforded by religion to some older adults may far exceed that obtainable from other sources."

Going back to our earlier question, just how does faith instill hopefulness and optimism toward the future? What are the functions of faith and how does it manifest in people, ultimately for the benefit of our well-being?

In his chapter in my book *Religion in Aging and Health*, Dr. Koenig described eleven characteristics of faith, reasons that it may be associated with hope and therefore with mental and physical health:

1. Emphasis on interpersonal relations
2. Stress on seeking forgiveness
3. Provision of hope for change
4. Emphasis on forgiving others and oneself
5. Provision of hope for healing
6. Provision of a paradigm for suffering
7. Provision of role models for suffering

8. Emphasis on sense of control and self-determination
9. Promise of life after death
10. Promise of ready accessibility
11. Provision of a supportive community

Dr. Koenig formulated his model of the ways that faith leads to hope in the context of Christianity and Judaism. But as faith enables us to endure suffering, its connection to hope is probably universal.

In *Problems of Suffering in Religions of the World*, religious scholar Dr. John Bowker described how each of the world's major religions accounts for suffering and seeks to understand it and alleviate it in its followers. Judaism, Christianity, Islam, Hinduism, Buddhism, Zoroastrianism, and Jainism—even Marxism and Manichaeism—all have theories of suffering, or ways to provide a context for and draw meaning from hopeless situations. Naturally, what is meant by suffering and how it is understood and remedied differ across these traditions. Likewise, what is meant by a good and faithful member of each tradition differs. Still, precisely because the "realities of suffering are common to us all," every religion seeks to instill hope in those who subscribe to its teachings.

For religious believers or the spiritually committed, hope provides a substantial link between active faith and psychological factors in disease prevention and healing. Being hopeful represents a cognitive state or process that mobilizes beliefs and emotions that, as we saw in Chapters 3 and 4, may reduce the risk of illness as well as hasten recovery. Faith, through its provision of hope and positive expectations, is epidemiologically significant.

Religious Faith and Spontaneous Remission

Whether one's faith is based upon illusions or upon truth matters little here. According to Dr. Jerome D. Frank, "expectant faith can be healing, regardless of whether or not it is objectively justified." So long as being faithful instills hope, then even "miracles" are possible. The thousands of pilgrims to Lourdes and other shrines attest to this fact.

Spontaneous Remission, an annotated bibliography published by the Institute of Noetic Sciences, cites *1,385* medical journal articles reporting cases in which cancer and many other serious chronic diseases seemed to miraculously disappear following treatment believed to be inadequate, or even with no treatment at all. These included remission of cancerous tumors of the lip, oral cavity, and pharynx; digestive organs and peritoneum; respiratory and intrathoracic organs; bone, connective tissue, and soft tissue; female breast; skin; genitourinary organs; eye, brain, nervous system, and endocrine glands; and lymphatic and hematopoietic tissue.

Also documented were remission of infectious and parasitic diseases; endocrine, nutritional and metabolic diseases, and immunity disorders; diseases of the circulatory system, blood, and blood-forming organs; nervous system, sensory organ, and mental disorders; respiratory system diseases; digestive system diseases; genitourinary system and pregnancy and childbirth-related disorders; diseases of the skin, subcutaneous tissue, musculoskeletal system, and connective tissue; and injury-related disorders.

Because current biomedical theories are incapable of making sense of such findings, the compilers of the bibliography, Caryle Hirshberg and the late Brendan O'Regan, offered more than two dozen hypothesized "psychospiritual mechanisms" as explanations for these remissions, one of which they termed "faith/positive outcome expectancy." Although faith and the hope it engenders are subjective states, apparently they are sufficient to cause the eradication of signs and symptoms of disease and the reversal of pathogenic processes.

Some physicians and scientists who are married to a worldview in which such things are impossible may never be willing to accept the existence of a faith factor in health. No matter how many epidemiologic studies are conducted or how many more hundreds of case reports are published in peer-reviewed medical journals, it will never be enough.

For example, on the basis of negative findings from a small, nonrandom sample of cancer patients from a single hospital in Pennsylvania, an editor of the *New England Journal of Medicine* felt compelled to declare, as recently as 1985, that "belief in disease as a direct reflection of mental state is largely folklore." Apparently, the

compilers of the spontaneous remission bibliography hallucinated the thousand-plus published cases. It is as if fifty years of research in psychosocial epidemiology, psychosomatic medicine, behavioral medicine, psychoneuroimmunology, psychophysiology, health psychology, medical sociology, medical anthropology, and social psychiatry never existed.

Other doctors and researchers, more open to embracing new ideas, recognize that being a good scientist or healer means being willing to consider new allies in the cause of healing and to welcome opportunities to explore new factors that may prevent illness and promote well-being. This is how science and medicine ultimately advance. Good physicians and scientists know this implicitly. Dr. Viktor Frankl, Holocaust survivor and one of psychiatry's greatest figures, said it best in his classic *Man's Search for Meaning*: "When a patient stands on the firm ground of religious belief, there can be no objection to making use of the therapeutic effect of his religious convictions and thereby drawing upon his spiritual resources."

Placebos: Transmuting Hope into Health

A commonly heard maxim is that we create our own reality. According to this widely shared view, our beliefs about ourselves and the world can indirectly—and perhaps directly—affect our lives and health for better or worse. In extreme form, this simple maxim often becomes, "Our thoughts are 100 percent of the cause of all disease." While few people likely agree with this, most of us probably affirm that our beliefs about situations to some extent shape our reactions and responses. Dr. Norman Vincent Peale's famous "power of positive thinking" has strongly influenced generations of Americans. Optimism, hope, good expectations, and positive mental attitude are characteristics of a healthy frame of mind, and no doubt benefit our overall well-being. But is it possible that the ways in which we perceive the world have more concrete effects?

In her book *Positive Illusions*, Dr. Shelley E. Taylor asked a provocative question: "Does optimism promote health?" Dr. Taylor,

professor of psychology at UCLA, proposed that optimism benefits health in two ways. "Functional optimists" can assess the future, identify health risks, and take necessary steps to prevent illness, such as engaging in healthy behaviors. Others see themselves as "invulnerable to health risks," and neglect healthy behaviors. This type of self-deception Dr. Taylor called "unrealistic optimism." The relationship between functional optimism and health seems apparent, but remarkably, she noted, unrealistic optimists may also be at a decided health advantage. "Research concerning the relationship of optimism to physical health is in its infancy, and relatively few investigations have been undertaken to this point. However, what evidence exists suggests that optimistic people may be somewhat healthier."

Some might think that the unrealistic optimists would rather hide their heads in the sand than face the possibility of future illness due to some risk factor in their family history. These folks, we are led to believe, do themselves a great disservice by refusing to acknowledge the risk and seek proper preventive care. Dr. Taylor summarized studies that show that this is not necessarily so. Optimistic people, even those at considerable risk, report fewer symptoms, recover more quickly from surgery, and meet with greater success in alcohol treatment programs than pessimists. What she called "creative self-deception" may be protective against illness. How can this be? Dr. Taylor suggested that the best explanation "for the beneficial impact of unrealistic optimism on health is the powerful and widely documented placebo effect."

The placebo effect has been subjected to increasing scientific scrutiny in recent years. It no longer is seen as just a mysterious anomaly, but now is viewed as a normal physiological response whose biochemistry is becoming much better understood. Dr. Taylor explained:

> How does the placebo effect occur? Our stereotype involves some nearly magical process whereby a person thinks she is going to get better after ingesting a placebo, and either does or thinks she has. In fact, the placebo effect is not purely psychological. People do not get better simply because they think they are going to get better.

> Rather, believing that one will get better releases a number of chemicals in the body that may actually promote healing. . . . Some placebos may stimulate the release by the brain of endorphins, naturally produced bodily chemicals that typically reduce pain and improve mood, at least temporarily. If placebos also promote the release of these chemicals, and research evidence suggests that at least some placebos do, then they likewise may produce a feeling of greater physical comfort and emotional well-being.

According to Dr. Andrew Weil, University of Arizona professor and best-selling author, placebos can produce concrete physiological effects that directly affect our health. Whatever orthodox medicine or drug therapy can do, a placebo can do just as well. In *Health and Healing*, Dr. Weil explained:

> There is no direct physical response of the human body to any therapeutic procedure that cannot occur with equal form and magnitude in response to an inert placebo. Placebos can relieve severe postoperative pain, induce sleep or mental alertness, bring about dramatic remissions in both symptoms and objective signs of chronic disease, initiate the rejection of warts and other abnormal growths, and so forth.

No surprise, then, that placebos have been called a "hidden asset in healing." How can we access this apparently universal and all-powerful force for health promotion, disease prevention, and healing? According to Dr. Weil, "Any person will respond to a placebo given under conditions that galvanize that individual's belief."

Clearly, a key to both understanding and making good clinical and preventive use of placebos is the identification of beliefs that engender hope and optimism. Perhaps the richest source of hopeful beliefs and positive expectations is found in the holy scriptures of the world's spiritual traditions.

Promises of Hope in the World's Scriptures

The holy writings of the world's religions are replete with messages promising health and protection to the faithful. Both Torah—the

Hebrew Bible—and the Christian New Testament, for example, contain passages promising health benefits to believers. Those who take these messages to heart may have increased resistance to disease, decreased risk of depression and emotional distress, and hastened recovery from illness. This is because faith leads to hope, and hope has physiological consequences.

A brief survey of the Bible reveals messages of hope that cross the stages of the natural history of disease and address a variety of health outcomes. For example, there are passages that promise the primary prevention of disease. This is defined by epidemiologists as measures that promote health, offer specific protection against disease, or establish barriers to disease agents in the environment. Primary prevention protects people who currently are well but are believed to be at some risk. For example: "If you will heed the Lord your God diligently, doing what is upright in His sight, giving ear to His commandments and keeping all His laws, then I will not bring upon you any of the diseases that I brought upon the Egyptians, for I the Lord am your healer" (Exodus 15:26).

Other scriptural passages suggest that faith offers secondary prevention against illness. This is defined by epidemiologists as measures that prevent the spread of disease, prevent disability, or cure or heal disease outright. Secondary prevention addresses the condition of people who already suffer from illness. For example: "You shall serve the Lord your God, and He will bless your bread and your water. And I will remove sickness from your midst" (Exodus 23:25).

The scriptures of other religious traditions also provide examples of this theme. Buddhist, Taoist, Muslim, and Hindu sacred writings all speak to the rewards of faithful living. Faith—in God, in a higher power, in the divine presence, in the tenets of one's tradition—offers comfort, solace, and mitigation of suffering. Through its provision of hope and its encouragement of appropriate behavior, faith is a pathway to emotional equilibrium and general well-being.

> By faith, by virtue and energy, by deep contemplation and vision, by wisdom and by right action, you shall overcome the sorrows of life (Dhammapada 144).

> Following the way from the start he may be said to accumulate an abundance of virtue; accumulating an abundance of virtue there is nothing he cannot overcome (Tao Te Ching 59:137).
>
> Allah is all-sufficient for the man who puts his trust in him.... He will bring ease after hardship (Qu'ran 65:3–7).
>
> Those who ever follow my doctrine and who have faith, and have a good will, find through pure work their freedom (Bhagavad Gita 3:31).

For the devout believer, such scriptures represent powerful promises that, taken to heart, may become self-fulfilling prophecies. Whether religious affiliation, participation, worship, or belief are health-promotive or not, as discussed in Chapters 1 through 4, *expectation* of a benefit from religious observance may contribute to greater well-being, psychological or physical.

Such a blessing delivered to the faithful may naturally result from the link between religious observance and wholesome living. Or, as many devout believers affirm, it may be due to divine grace or the supernatural intercession of God. But even if, heaven forbid, there were no such thing as God, mere faith in God's existence may be enough to promote health and prevent or even cure illness. Independent of all the other health-giving factors discussed in this book, hope and expectation seem to be capable of miracles. This is amply supported by both scientific evidence and theory. There *is* a faith factor in health.

Lessons to Consider

The evidence in this chapter gives rise to our fifth principle of theosomatic medicine:

PRINCIPLE 5

Simple faith benefits health by leading to thoughts of hope, optimism, and positive expectation.

What can we learn from findings linking religious faith and subjective religiousness or spirituality to health and well-being? Given the ability of faith to provide hope, and of hope to influence our state of mind and even the functioning of our body, what does this suggest about the public health significance of positive expectations? Is absence of faith a risk factor that threatens the health of people and populations?

One of the difficulties in communicating epidemiologic findings to nonscientists is the challenge of translating observations that emerge "on average" into personal recommendations. Epidemiologically significant factors—whether they increase risk or offer protection—are determined by statistical relationships identified in large-scale studies of populations. As explained in the Introduction, just because studies show clearly that cigarette smoking and alcohol consumption, for example, are risk factors for heart disease, cancer, and other chronic illnesses, doesn't mean everyone who smokes or drinks will become sick, or that those who don't indulge will be immune from sickness.

A maxim of epidemiology is that our state of health or illness at any given time is a function of a combination of all possible risk and protective factors that can come into play. Epidemiologists divide these factors into three categories, and call this model the "epidemiologic triangle." Some factors are related to pathogenic agents (bacteria, viruses, parasites, toxic chemicals), some to the environment (physical, sociocultural, interpersonal conditions), and some to the "host" (personal characteristics). This last category includes medical history, nutritional status, heredity, physiology, behavior, and psychological states and traits—our thoughts, emotions, and personalities. Where we stand in each of these categories, and how these factors interact with each other, ultimately determine our health. Further, the combination of factors that produce a given result in one person may be dramatically different in another.

These are important caveats in understanding what the presence of a faith factor in health means and does not mean. As with the other agent, environment, and host factors more familiar to physicians and medical scientists, findings presented in this chapter

do not suggest that faith is sufficient for prevention or healing of all disease. No factor that we know of fits that description. Maintaining good health and well-being, and preventing illness and distress, are the result of the convergence of many factors. Nor is faith likely a necessary factor in health promotion and disease prevention. Tens of millions of people who are neither religious nor spiritual go about life in excellent health.

What the findings presented in this chapter do suggest is simply this: faith deserves a place at the table in discussions of factors known to prevent illness and promote health and well-being. Faith deserves to take its place alongside family history, health-related behavior, stress, environmental exposures, and all the other factors that we recognize as important for health. Faith is not a magic bullet—but neither is any factor. By excluding faith from scientific discussions of the determinants of health, and from discussions of factors that may be clinically significant in some people, we arbitrarily rule out a potentially powerful ally in reducing distress and promoting health.

Dr. Ian Wickramasekera, a past president of the Association for Applied Psychophysiology and Biofeedback, Stanford professor, and one of the pioneers in the field of psychophysiology, minces no words in his endorsement of the importance of faith for scientists and clinicians: "I believe that understanding the mechanisms of faith, the placebo effect, and learning how to systematically use the power of the expectancy and the memory of prior healings is one of the most important long-term goals for health care in the 21st Century."

Questions to Reflect On

I began this chapter by talking about Heloise. After a happy and seemingly charmed existence, her life became a nightmare of tragedies. One of these was a crippling illness. Bolstered only by her faith in God, she refused to curtail her church activities and sink into self-pity. Years later, nothing has changed: she is still physically limited to some extent, but her mood remains radiant and she is undeterred in fulfilling what she sees as her duty to serve others.

Heloise's story is exceptional. But it differs only in degree, not in kind, from the stories that some of us could tell. Not many of us have had as many challenges and in such quick succession. But we all know people who have maintained their health or spirits in the face of physical disabilities or incredibly debilitating life circumstances.

Why some people stay well, or get well, and others do not is mostly a mystery. One person flourishes, the other does not. There may be few differences in their diet, physical activity, or use of alcohol or tobacco. There may also be few differences in their access to good physicians or medications, in their personal or family health histories, in their environmental or occupational exposures, in their supportive and nurturing relationships, in their experience of positive emotions, or in their expression of healthy beliefs and psychological characteristics. How then do we explain differences between them in physical and mental health?

In their book *Remarkable Recovery*, Caryle Hirshberg and Marc Ian Barasch addressed this question specifically in relation to survival with cancer and other serious diseases. They interviewed scores of people, all with fascinating histories. Some told amazing stories of "miraculous" healings and spontaneous remissions. Other stories not as flashy, but nonetheless remarkable, were of people who had continued to live and be well, inexplicably, despite prognoses that seemed to promise otherwise.

In looking for a common thread, Hirshberg and Barasch sought to understand just what explained these people who were anomalously well. They surveyed findings from studies of many of the same factors explored in this book: personality styles, emotional states, health beliefs, social relationships, psychoneuroimmunology, psychophysiology. In the end, what emerged was more than just a single answer. This is what one would expect in light of our knowledge of the epidemiologic triangle. There are many possible reasons for why people get well or stay well, and the combination of reasons differs among us.

Through interviews with their subjects, however, the authors found that certain themes kept emerging, supported by scientific research findings. One of these themes was the presence of a hopeful

and optimistic attitude. Hirshberg and Barasch discussed the results of research which found that 90 percent of a sample of oncologists had seen evidence in their practice that hope and optimism "were of significant benefit to treatment."

This jibes with my own experiences and probably those of most scientists and physicians who have explored this topic. Often I have been with health professionals and the talk has turned to inexplicably well people. I have never spoken with a physician or nurse who did not have a firsthand account of a patient whose faith, hopeful thoughts, or optimistic attitude seemed to play a beneficial role in his or her state of physical or mental health. Many doctors have stories to tell about themselves, but because the topic is considered off-limits in some quarters, their own tales of remarkable recovery or perseverance are untold. This is a great shame, and is quite unnecessary.

As this chapter has documented, the beneficial influence of faith and hope is both well demonstrated and what epidemiologists term "coherent"—consistent with current knowledge about psychological factors in etiology, the natural history of disease, and prevention of illness. The stories of each of us—about the salutary role of faith, hope, and optimism—contribute to the growing database of evidence supporting a faith factor in health. The following questions can help us to reflect on how faith in God or a higher power affects our state of mind and our attitudes toward the future, and ultimately our well-being.

1. Consider the ways in which you experience and express religious faith or a personal sense of spirituality. Do you consider yourself religious? Do you consider yourself not necessarily religious, but spiritual? How do you distinguish between the two? Are you both? Would you say that you have a strong faith in God or a higher power? What does it mean to you to have faith? Does it mean that you trust in God? That you expect God always to be there for you? That you believe in or affirm the teachings of your religion or spiritual tradition? Is faith, for you, about something else entirely?
2. Because of your faith, do you believe that you are more hopeful, in general? More optimistic about the future? Do you believe in

God or a holy or divine presence that knows you and cares about you? Do you expect that God or the universe hears your prayers and responds in some way to your needs? Does your faith give your life a sense of purpose? What do you think your life would be like if you did not have any faith?

3. Do you feel that your faith in God or your commitment to a spiritual way of life makes you a stronger person? Have you ever experienced a time of illness when, you believe, a positive attitude helped to hasten your recovery? Have you ever known someone whose faith instilled a degree of hope that saw them through a physical or emotional challenge in a way that their physician could not explain? What about the opposite—has negative thinking ever helped to make you or a loved one sick? What did you, or they, learn from the experience? In your experience, are faith and optimism an integral part of the "whole armor of God" (Ephesians 6:11) that can shield someone, at least in part, from the harmful effects of stressful circumstances?