

Throughout recorded history humans have intuitively associated religion with health. From the proscriptions against unhealthy behaviors in ancient texts to the healing miracles of Jesus, the connection has seemed natural and spontaneous. Now, with the advent of modern medicine, evidence for that connection is being supported scientifically. What's more, new spirituality and health research studies are revealing the underlying mechanisms that explain key aspects of how this connection works. On the one hand, healthy lifestyles involving adequate exercise, balanced nutrition, and even frequent servings of humor, have indeed been confirmed as important. However, another relationship, one between spirituality and health, is emerging as equally important. Studies are correlating the practice of religion itself with reduced risk of disease and enhanced longevity.

For example, according to a 28-year study of 5,000 adults, weekly attendance of religious services decreased the risk of dying during the follow-up period by 36%. These results were then replicated in another study of 4,000 adults over six years. Additionally, a random survey of more than 20,000 Americans found that whites, who attended religious services regularly, lived an average of seven years longer than those who did not. For people of color this correlation was even more significant, adding 14 years to their life span. In a follow-up study investigators attempted to determine the reason for this correlation by measuring blood levels of interleukin-6 (IL-6), which stimulates inflammatory processes as a short-term response to acute stress. IL-6 is an immune response that prepares the body for a possible injury. Their findings in a six-year study show that IL-6 levels appear to mediate to the negative effect of stress for people who did not attend religious services.

In other words a short-term response to stress turned into a long-term or chronic stress response. The immune system switched on and produced an inflammatory response, but it did not turn off quickly, when it should have, because ongoing stress continued to trigger the response. On the other hand, people who integrated spirituality into their lives were naturally able to turn off this unneeded immune inflammatory response. This suggests that an important part of the connection between spirituality and health involves the role of religious practices in modulating the effects of stress. In particular attendance at religious services appears to create a biological influence that lowers stress-related neurochemicals in the brain. These neurochemicals are the ones that associate stress with immune system function. The emerging implication suggests that while stress can impact the immune system, the practice of religion can reduce the negative effects of stressful experiences. In particular it may help the body avoid a chronic stress response that keeps the immune system in a perpetual but undesirable state of high alert. A balanced immune system response, in turn, results in improved health overall and, apparently, in longer life.

Perhaps the most surprising aspect of this research, though, is the strength of the observed correlation between spirituality and health outcomes. The effect that has been measured is about the same as the effect of stopping smoking, in terms of years added to one's life. No similar health benefits are known to exist for any other life-style behavior.

At Glendale Adventist Medical Center (GAMC) the results from the analysis of data related to a population health-screening program appear to add additional support, confirming the connection between spirituality and health as well as the general mechanisms described above. GAMC's program was concerned with demonstrating that it makes sense to screen the general population in order to identify and treat people at high risk for heart disease. Consequently, the program's screening tool, a simple cost-effective questionnaire, asked people about lifestyle behaviors associated with known risks for heart disease. This included questions about people's individual experience of stress. In the follow up with over 1000 people identified at high risk, the project conducted the traditional blood test for cholesterol as well as a new test for hsCRP (a high sensitivity test for C-Reactive Protein). Recent evidence suggests that inflammatory processes in vascular arteries is a significant contributor to heart disease and can be measured by a simple blood test for elevated levels of CRP, an inflammatory mediator. Furthermore, this inflammatory process in arteries is stimulated by the immune system and, as the data now shows is related to the presence of psychosocial stresses in one's life. Not surprisingly, elevated CRP is also related to the immune system's production of interleukin-6.

A familiar pattern emerged from analysis of the GAMC data. Like the other studies described earlier, one of the questions on the screening tool asked people if they regularly attended religious services. People that responded with a "yes" had a 26% lower likelihood of having an elevated CRP level and 49% lower for other symptoms of heart disease. This finding was substantially more significant than for any of the other psychosocial questions asked of the screening participants.

What we were not surprised to learn was that chronic stress seems to exacerbate disease. That outcome has been demonstrated in multiple studies and was intuitively recognized long before studies were even conducted. What did surprise us was how much stronger is the protective benefit of practicing religion as opposed to other psychosocial influences. The evidence clearly supports that spirituality reduces health risk and appears to do so by reducing the negative effects of stress.

Why does spirituality offer such a significant benefit? Research is only beginning to develop answers to this question. Nevertheless, many aspects of religious experience may be seen to lower people's stress levels. For example, both music and socialization have known health benefits. Additionally, the emphasis on behaviors reflecting love and forgiveness may play a role. However, spirituality also empowers people to alter their life perspectives. Sometimes experiencing "faith" can mean that people change their attitudes toward situations that otherwise might cause them to feel stressed. If spirituality helps people's attitudes change toward those things that trigger stress, then perhaps a chronic stress response is avoided. In which case the immune system functions more effectively and people stay healthy. Whatever the researchers ultimately find to be the reason for spirituality's health benefits, some people will not be surprised because they intuitively recognized that spirituality is an important part of a healthy life.

\*Based on the article, "Religion, Spirituality, and Their Relevance to Medicine: An Update," by Andrew J. Weaver and Harold G. Koenig.