

# Emotional Rescue

Research's last frontier is all in your head

September 1, 1999 By Jeffrey Leiphart, PhD

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“Stress Speeds HIV Progression to AIDS,” blared the headline of a UPI story that got big play in May. In a five-year study of 82 HIV positive gay men, researchers at the University of North Carolina at Chapel Hill found that those who had either more than average amounts of stress or less than average support from friends and family got sick two to three times faster. The presence of even one major chronic stress factor (such as being another PWA's primary caretaker or losing a loved one) doubled the risk of developing AIDS.

These trumpeted findings came as no surprise to those of us who follow the science. The simple truth is that our immune systems and emotional lives are directly linked, as has been amply documented by research in psychoneuroimmunology (PNI). Over the past three decades, thousands of PNI studies by immunologists, neurologists, psychologists and others have probed the role of psychological factors in the onset and progression of various illnesses. Since 1983, many studies have focused on people with HIV. So we now understand the biological mechanisms by which thoughts, beliefs and emotions affect the immune system's capacity to fend off disease.

Scientists have discovered extensive interconnections among the nervous, hormonal and immune systems. For example, when perception of danger triggers the “fight or flight” response, the brain's hypothalamic pituitary-adrenal (HPA) system releases a hormone that floods the bloodstream with cortisol, a potent inhibitor of immune function. Another stress-released hormone, the well-known adrenaline, binds to CD4 immune cells, suppressing them until the pressure passes.

Natural killer (NK) cells constitute one part of the immune system that is quite sensitive to psychological factors such as assertiveness (as well as to exercise). Although largely ignored by researchers and clinicians, NKs are known to be capable of destroying HIV both in the blood and in infected body cells. And as the only immune cells not dependent on CD4 cell signaling, NKs may play a central role in maintaining the health of long-term AIDS survivors whose CD4 counts are low.

In studies correlating psychosocial patterns with immune-system measures (CD4, CD8 and B cell counts, and NK numbers and potency), symptoms and death, scientists have found that stress can indeed affect survival. Some of the most provocative and relevant findings are listed below. While

some readers may be tempted, at first blush, to dismiss such a list as too New Agey, bear in mind that these conclusions are based on rigorous, peer-reviewed scientific studies. And all cry out for more research.

**Chronic, unresolved grief.** Intense, unexpressed feelings of sadness and loss lasting for months can significantly suppress the immune system and speed disease progression. On the other hand, working through grief enhances immune function.

**Social support.** Talking openly about life difficulties with trusted friends or loved ones can provide a buffer against the immune-suppressing effects of stress and depression. HIV positive men with low levels of social support have shown faster CD4 declines than those with substantial amounts. Long-term survivors characteristically utilize social support, often from other PWAs.

**Self-assertiveness.** PWAs who practice a proactive approach have boosts in both the amount and the strength of NK cells. Also, long-term survivors and nonprogressors show a common assertive-personality profile.

**Sustained stress.** The North Carolina study was the latest of several to find that chronic, intense stress can decrease levels of CD4 and CD8 cells, and speed HIV disease progression.

**Crisis-coping capacity.** Long-term survivors generally demonstrate the ability to accept and manage crises, while a pattern of denial and repression predicts symptom development. An active coping style is associated with increased NK functioning.

**Nondisclosure.** Gay men who conceal their gay identities progress to AIDS faster than do those gay men who are out. A similar correlation applies to openness about HIV status.

**Chronic depression.** Depressed HIV positive men lose CD4 cells faster than do their non-depressed counterparts; depression plus hopelessness strongly predicts CD4 decline.

**Life purpose and goals.** Pursuing life goals is a common characteristic of long-term survivors, who often have a sense of purpose and a commitment not only to address unfinished business but to make new meaning from the disease itself.

During the 1980s, as evidence of this stress-survival link accumulated, I worked with mental health professionals and people with HIV to develop a program to help PWAs manage harmful psychological patterns and so improve immunity and overall health. In 1992 I launched LIFE, or Learning Immune Function Enhancement, a three-month program with group and individual counseling, at San Diego's Lesbian and Gay Men's Community Center. More recently I brought LIFE to Shanti Project, a community-based HIV support agency in San Francisco. The University of Miami offers a similar HIV program that provides stress management, bereavement support groups and aerobic exercise training. Harvard Medical School operates the Mind/Body/Spirit Program for HIV in which participants learn to manage stress via analysis of "negative" thoughts, journal writing, expression of emotion and humor.

All three programs teach HIV positive people the basics of mind/body research, measure performance on psychological cofactors and provide educational and counseling guidance. Short-term research has shown that these programs can help people with HIV to reduce their overall symptoms as well as specific problems such as gastrointestinal distress. The initial results are promising, but more rigorous clinical trials are needed to fully assess the effectiveness of PNI-based programs to enhance immunity.

Despite this pile of PNI data and the development of clinical programs, mainstream medical care has yet to incorporate this approach into HIV care. And government support for research has been pitifully small. Why? First, a fixed biological model—disease is caused by germs, and health is restored by killing the germs—remains the overarching paradigm, allowing no room for psychological factors in disease progression. Second, primary medical care is understandably based on the biological model. Medical institutions and procedures are not constructed to include psychological aspects of patients' lives. Finally, the AIDS research agenda is dominated by a pharmaceutical approach. The concept of improving psychological health as a treatment for physical disease is widely considered unscientific.

To advance the search for effective PNI-based treatments for PWAs, the medical community should first acknowledge that our understanding of health has shifted from a purely biological model to a mind/body approach. We need increased research on specific psychological factors to determine how, to what degree, in whom and at what disease stage they affect immunity. Beyond academic immunology studies, there should be clinical trials to evaluate psychological health-management programs. And those trials must go beyond the overwhelmingly white gay male population used in PNI research to date.

Recent advances in the study of HIV have led us to a new, dual model that may help people to control their disease for many years: In addition to antiretroviral regimens that stop viral replication, experts view treatments that boost the immune system as increasingly critical. Some of these will be drugs delivered by physicians, while others will come via PNI-based counseling programs. With the support of people with HIV and their doctors, we can energize research into the ways that resolving psychological pain can contribute to physical healing.