

# Link between mind, body under increasing debate

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## Other behavioral connections in the report

**PHILADELPHIA** — Angry people are more likely to develop heart disease. Depression may weaken the immune system. Stress aggravates asthma.

Smoking, overeating and lack of exercise make people more prone to serious diseases and less likely to recover from them. Disease itself leads to psychological problems which can then affect how people perceive and cope with their illness.

The link between mind and body is increasingly apparent, according to a new report that examines behavioral connections to a wide variety of diseases and treatments.

The growing science of that interplay between psychology and biology — known as behavioral medicine — is the focus of a special issue of the *Journal of Consulting and Clinical Psychology*, published last week by the American Psychological Association.

"With steadily increasing sophistication, the evidence continues to mount that behavioral factors play a key role in the development and course of nearly all major diseases and disorders, as does the evidence that a wide variety of behavioral interventions produce useful changes in the risk, impact and course of disease," the editors wrote.

It is the third such special issue since 1972 when there was

**Immune function.** Psychosocial factors such as depression or stress affect immune function in infectious disease, cancer, wound healing, autoimmune disease and HIV, research increasingly shows. Negative emotions have been associated with inflammation, which has itself been linked to many conditions of aging, such as heart disease, osteoporosis and arthritis.

**Heart disease.** Although there's conflicting evidence in some cases, evidence is mounting that anger, depression, anxiety, pessimism, social isolation and job stress all increase the risk for heart disease. Preliminary evidence also points to "social dominance" — evidenced by controlling behaviors such as a tendency to cut off and talk over an interviewer — as a risk factor. It's not yet clear whether treating these problems affects the course of the disease.

**Chronic pain.** Psychological factors affect quality of life, the ability to cope, and disability associated with pain. These factors include emotion, social background and the meaning of pain to the sufferer. Long-term pain affects all aspects of a person's functioning.

**Diabetes.** While there is "very strong genetic loading" for the disease, many people could prevent its onset with a healthier diet and more active lifestyle, said Linda Gonder-Frederick, clinical director of the Behavioral Medicine Center at the University of Virginia.

**Asthma.** Patients with asthma have greater airway constriction in response to stress than healthy people. While there's no solid evidence that behavioral factors cause asthma, there is some evidence that it plays a role in the development of some disorders. Anxiety, depression and panic disorder are more common in asthma patients. While results are mixed, hypnosis, yoga and biofeedback offer promise for helping some asthma patients.

**Depression.** Go into a primary care waiting room and "people are as likely to have depression as hypertension. If you don't catch them there, there's a good chance that they won't get treated," said James Coyne, a psychologist at the University of Pennsylvania who wrote about depression in primary care. Yet treatment in that setting is not as effective as it is in clinical trials. Coyne thinks that's because treating depression takes more than handing out pills. Because patients often must switch medications or dosages, they need better education and follow-up, he said.

said. That is, the previous "it's-all-biological" view and the "it's-all-in-your-mind" ideology have found compatibility. Healthy behavior, he said, influences weight, breathing, organ function and recovery from illness. "Even the simple adherence to medical advice ... requires consideration of psychological influences."

Smith said he was struck by the volume and quality of research on the subject in the last 10 years.

"We have much clearer theories or much more detailed research through which we can trace the pathway from a psychological or behavioral process through some intervening mechanism on to the development and course of the disease itself," he said.

Behavioral medicine, he said, is a big field that looks not just at an individual's illness, but how that illness is affected by his psychological makeup, relationships, community and environment. Dealing with sickness then means more than giving the right medicine. It could mean working to change community attitudes or national policies. It could mean working with children to prevent unhealthy behaviors that start in childhood but won't result in disease for decades—such as overeating.

Thomas Wadden, a psychologist who directs the Weight and Eating Disorders Program at

the University of Pennsylvania, said studying how behavior and health interact has gained importance as science has conquered many of the infectious diseases that used to send people to their graves. Now, it's more often our own temperament and behavior that make us sick.

Wadden, who wrote an article on obesity for the journal, says doctors have gotten better at helping people lose weight — more exercise and less food is still the best advice — but they're losing ground against a "toxic environment" that discourages physical activity and encourages people to eat huge portions of junk food.

He argues it's time for Americans to tackle the environment that induces so many people to eat themselves sick. That includes looking at whether fast-food restaurants should be allowed to lure children with toys or whether schools should allow sugary sodas.

Keith Whitfield, associate professor of biobehavioral health at Pennsylvania State University, who wrote one of the articles, said psychologists and doctors must begin to think differently about behavior as the country becomes increasingly diverse. Psychologists need to do more research on how ethnicity, culture, gender and social status affect behavior and health.

"much more skepticism" about behavioral medicine than there is today, said Timothy Smith, chair of the University of Utah's psychology department and editor of the behavioral medicine report.

Philip Kendall, a Temple Uni-