Resilient Personality May Bring Better Aerobic Health

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FRIDAY, March 1 (HealthDay News) -- If you have a resilient personality -- if you handle tough situations better or snap back well after a setback -- you're more likely to have better aerobic health, too, according to a new study.

Researchers from the Florida State University College of Medicine studied nearly 650 adults to learn more about the relationship between personality traits and physical *fitness*, specifically aerobic capacity and metabolic rate. Their findings were published online recently in the journal *PLoS ONE*.

Study author Dr. Antonio Terracciano, an associate professor of geriatrics, said it's difficult to know whether personality traits affect cardiovascular health or if it works the other way around -- if being more heart healthy makes a person more resilient. But what is clear is that the two are linked, the new study suggests, despite not proving a definitive cause-and-effect relationship.

"There is a reciprocal influence. If you have more energy, you may be more extroverted," Terracciano said. "But if you're more social you may be better at performing physical tasks. It's really difficult to distinguish which way it's going."

The four-year study included people ranging in age from 31 to 96 who are participating in ongoing research on aging from the U.S. National Institute on Aging.

Terracciano and his colleagues began by evaluating participants' personality traits -- their level of neuroticism, extraversion, openness, agreeableness and conscientiousness. The study participants were considered more "resilient" if they scored lower on neuroticism and higher on the other four personality traits.

The next step was to track each person's metabolic rate, or energy expenditure, while resting and when active. The scientists did this by measuring blood oxygen saturation, first testing participants at rest, then testing them while *walking* at a slow pace and again while they walked at their quickest stride.

At the start of the study, Terracciano said he thought people who were more anxious or nervous would have higher metabolic rates. "But we didn't find this," he said.

Terracciano said the participants who were identified as more neurotic took a longer time to complete the walking portion of the study and had lower aerobic capacity. Those who scored lower for neuroticism and higher for conscientiousness, extraversion or openness, had better aerobic capacity and expended less energy to walk the same distance. This meant those who were more resilient personality-wise were faster and had better aerobic capacity. "They could go faster but they used less energy," Terracciano said. "But I should make it clear that we did not find a relationship between personality disposition and resting metabolic rate."

In other words, while specific traits of resilience played a role, how nice or not nice someone was in general was not connected to having a better or worse metabolism or aerobic fitness level.

Dr. Joanne Sotelo, the division director of psychiatry at Scott & White Healthcare in Round Rock, Texas, said the research makes sense.

"The study reinforces what we already know -- that personalities that are more flexible and adaptable will do better overall," Sotelo said. "It's a reminder that for people who are more symptomatic -- from a personality or mental-health-disorder standpoint -- we have to recommend to them that they need to eat well, *exercise* and *sleep* well. I discuss this on a regular basis with patients."

She said the word "neuroticism," which the study authors use to describe a personality trait, may be a little outdated though.

"'Neurotic' is kind of an older term for people who may be more dramatic, who have poor coping skills and are not very flexible," she said. "They often have unstable work and relationships. If they are defining it that way in the study, then the results make sense -- that your lifestyle is probably not going to be the best."

The authors said their findings add to a growing body of research that suggests personality traits, such as having a social nature, are linked to having better cardiovascular health, which is related to longevity and better overall health later in life.

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SOURCES: Joanne Sotelo, M.D., division director of psychiatry, senior staff physician, and assistant professor, Scott & White Healthcare, Round Rock, Texas; Antonio Terracciano, M.D., associate professor of geriatrics, Florida State University College of Medicine; Jan. 25, 2013, *PLoS ONE*, online