# **PERSONALITY MATTERS**

YOUR HEALTH GETS PERSONAL, BUT YOU DON'T HAVE TO JUST SIT THERE

BY DOUG CARLSON







hether you know it or not, you might be less likely to take your medicine or to follow a doctor's orders because of a pre-existing condition. Specifically, that personality of yours. Leading you to balk at what the doctor tells you isn't the only way your personality could be impacting your health. Most people already know Type A personalities

are ripe for high blood pressure and heart problems if they don't learn to lighten up a little. But a couple of College of Medicine researchers have been digging deeper into the connections between personality traits and mental and physical health outcomes.

What they've found is enough to make you put down your coffee.

Angelina Sutin, assistant professor of medical humanities, and

Antonio Terracciano, associate professor of geriatrics, look at biomarkers of health and make comparisons to expressions of personality traits as defined in the Five Factor Model (see Page 15 - 'Where do you fit in?'). In a series of recent and separate publications appearing in peer-reviewed journals, they've revealed more than a few surprises.

For example, they published research showing that people with a resilient personality - handle tough situations well and bounce back after letdowns - have greater aerobic capacity. Translation: They're probably going to live longer and have more energy while doing so.

In another study, they found that people with more impulsiveness or excitementseeking in their personality higher white blood cell counts, a risk factor for morbidity and mortality.

Those aren't the only notable findings Sutin and Terracciano have published. A sampling of their other recent discoveries:

- Individuals scoring high on neuroticism and low on conscientiousness are more likely to develop Alzheimer's disease.
- People tend to enjoy an overall greater level of happiness and satisfaction with life as they age (feature story, Page 16).



Angelina Sutin

- Impulsivity contributes to weight gain, which in turn weakens the ability to resist cravings. At the same time, those who gain weight become more concerned about their behavior.
- Individuals who are impulsive and lack discipline (low conscientiousness) have higher levels of leptin (a hormone that tells the brain to stop eating), which suggests one

potential physiological pathway between personality and obesity.

People subjected to weight discrimination are 2.5 times more likely than others to gain additional weight over time.

So what does all this mean? That you're doomed to a certain fate based on your personality type?

"Our research suggests that certain personality traits such as neuroticism or conscientiousness contribute to morbidity and mortality, but the diseases they contribute to, such as obesity or Alzheimer's disease, are complex and have complex etiologies," Sutin

> "From this perspective, personality is one risk factor that contributes to disease, and a risk factor is not the same thing as fate."

#### Whew.

Still, the question lingers. What can we make of these revelations about personalities and

health? More to the point, is there anything we can do about it?

"For one thing, an effort can be made to change behaviors that are conducive to poor health," Terracciano said. "People do make changes such as stopping smoking and exercising more."

They caution that personality traits are only one part of the complicated equation that is your health, citing the Alzheimer's disease study as an example.

"Studies are consistent in suggesting that personality is one contributing factor to dementia," Terracciano said. "Our hypothesis is that this association is in part explained by health-related behaviors. For example, conscientiousness may influence the level of physical activity, and higher physical activity is protective against dementia."

The discoveries speak to the College of Medicine's mission and focus on primary care. Guiding people toward healthier choices is more effective from a broad health-care standpoint than, say, increasing access to medical specialists who would try to fix the damage after it's done.

That's especially true when there's such a wide disparity in access to care. Obesity is one example. It disproportionately affects the poor, who are less likely to eat a healthy diet. Research that provides greater understanding of how personality traits play into the equation opens up new avenues for intervention.

"The question then becomes what can we do as health professionals to reinforce mechanisms so that healthy eating becomes the default societal response – lettuce and carrots instead of chocolate cupcakes," said Les Beitsch, M.D., chair of the college's Department of Medical Humanities and Social Sciences.

"We likely need a multifaceted approach so that individuals with less impulse control are not constantly inundated with the opportunity for poor health outcomes related to excessive weight gain."

Sutin and Terracciano, both with behavioral psychology backgrounds, are motivated by scientific curiosity and by the reality that nearly half of all deaths in the United States are linked to behaviors or other risk factors that are mostly preventable.

"When you understand how personality traits are linked to health outcomes, you get a better sense of why people do some of the things they do," Sutin said. "And that will point to places to intervene."

The couple met when they were researchers at the National Institute of Aging in Baltimore, Md., and married a few years later. They joined the College of Medicine in August 2012. Their mutual research interests are part of a way of life – a conversation at breakfast could be the genesis of a new study.

For what it's worth, Sutin is considered in Five Factor Model-speak to be above the median for the personality domains of neuroticism, openness and conscientiousness and below the median for extraversion. Terracciano is average for extraversion, agreeableness and neuroticism and higher for openness and conscientiousness.

Their work, of course, piques the interest of curious family members. They've pulled aside more than one who exhibited personality traits associated with certain health risks.

"But they tend not to listen," Sutin said.

"An important thing to remember," she added, "is that personality traits are not inherently good or bad; it is the expression that can be positive or negative."

Sutin would advise readers not to read too much into personalities as a predictor of what's in store for the future, but to consider things that could improve the odds of living a healthier, happier life.

She offers the couple's approach to parenting as a lesson in keeping these research discoveries in perspective. Though Sutin and Terracciano have spent years studying the links between personality traits and health, they don't let what they know unnerve their parental instincts in raising daughter Baia, age 3.

"Much of parenting is channeling children's impulses, desires, interests, skills and so forth in a constructive and socially desirable direction," Sutin said. "This applies to personality traits, too."









#### 44. Seldom get lost in thought.

 Very inaccurate
 Moderately inaccurate
 Slightly inaccurate
 Slightly inaccurate
 Moderately inaccurate
 Very Accurate

#### 45. Like to supervise the work of others.

 Very inaccurate
 Moderately inaccurate
 Slightly inaccurate
 Moderately inaccurate
 Very Accurate

#### 46. Spent 10 minutes or more in a non-grocery store.

Never in my life Not in the past year S times in the past year S times

## WHERE DO YOU FIT IN?

To help study how personality traits impact physical and mental health outcomes, different groups of researchers developed and refined the Five Factor Model (FFM) as a global measure of personality.

The FFM, which describes individuals in terms of five fundamental traits, is considered state-of-the-art in terms of a scientific model of personality traits.

The model was developed on the assumption that all the important measures of a personality are encoded into language. Researchers gave study participants long lists of adjectives and asked them to rate themselves according to how well they thought each word applied in their case.

Using a technique called factor analysis, the researchers boiled the answers down to apply to underlying factors. The five domains of personality in this model are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.

College of Medicine researchers Angelina Sutin and Antonio Terracciano use the FFM in a number of their studies, including some of those described in the preceding pages.

Want to get a quick reading about your personality? Sutin and Terracciano recommend a website run by researchers from Northwestern University. Get your personality profile by visiting sapa-project.org

### A SAMPLE PROFILE FROM SAPA-PROJECT.ORG

