TITLE: Translating personality psychology to help personalize preventive medicine

An international research team led by Salomon Israel, Terrie Moffitt, and Avshalom Caspi at Duke University reports that highly conscientious people keep their youthful health years longer.

PUBLICATION SOURCE: *Journal of Personality and Social Psychology, March 2014 issue*

THE FINDINGS:

We predicted that using a 5-item conscientiousness checklist would help identify which people out of a group of a 1,037 26-year-olds would go on to develop multiple health problems.

Twelve years later we followed them up at age 38, and found that among those least conscientious as 26 year olds, about half, 45%, went on to develop multiple health problems (3 or more) by age 38. In contrast, only 18% of the most conscientious group developed multiple health problems.

Individuals low in conscientiousness were more likely than their peers to become overweight, have elevated cholesterol levels and systemic inflammation in blood tests, suffer from high blood pressure, have poor tested cardio-respiratory fitness, and even have greater rates of gum disease.

WHY ARE THESE FINDINGS IMPORTANT?

Health professionals are placing increased emphasis on targeting younger populations for disease prevention. Since young adults often appear healthy, it is hard to predict which now-healthy patients will develop health problems in the future.

Personality traits can be measured cheaply, easily and reliably, as part of a checklist completed in primary care appointments, and these traits are stable over many years and have far-ranging effects on health. Our findings suggest that if doctors knew their patients' conscientiousness scores they could work with the patients to prevent future illness.

SUPPORTING DETAILS:

Big-5 personality traits (openness-to-experience, conscientiousness, extraversion, agreeableness, and neuroticism) were assessed when study members were 26-years old by informants that knew study members well. Personality traits were again assessed when study members were 32-years old by an administrative assistant and a nurse who just met the study member for the first time and were blind to the study's focus. Conscientiousness questions included items such as "very organized, hard worker, works until a thing is done, is careful."

Physical health was measured across multiple domains including: cholesterol levels, blood pressure, blood sugar, waist circumference, cardiorespiratory fitness, pulmonary function, periodontal disease, and systemic inflammation.

Statistical controls for information that doctors typically collect in primary-care settings. Individuals scoring low in conscientiousness went on to develop poorer health 12 years later even after accounting for preexisting differences in education, socioeconomic status, smoking, obesity, self-reported health, medical conditions, and family medical history.

PARTICIPANTS:

1,037 members of the Dunedin Multidisciplinary Health and Development Study, which follows children born in Dunedin, New Zealand, between 1972 and 1973. This birth cohort's families represented the full range of socioeconomic status in the general population of New Zealand's South Island. Follow-ups have been carried out at birth and at ages 3, 5, 7, 9, 11, 13, 15, 18, 21, 26, 32, and 38 years, when 95% of the 1,007 Study members still alive took part.

MEDIA CONTACTS:

Salomon Israel, Department of Psychology and Neuroscience, Duke University, Durham, NC; email: salomon.israel@duke.edu

Avshalom Caspi, Department of Psychology and Neuroscience, Duke University, Durham, NC; e-mail: avshalom.caspi@duke.edu

Terrie Moffitt, Department of Psychology and Neuroscience, Duke University, Durham, NC; email: terrie.moffitt@duke.edu

Universities Involved:

Duke University, 2020 West Main Street, Box 104410, Durham, NC, 27708, USA; King's College London, Institute of Psychiatry, UK; and University of Otago, Dunedin, 9016, New Zealand

MAIN FUNDING SOURCES:

The U.S. National Institute of Aging ; the U.K. Medical Research Council ; the U.S. National Institute of Dental and Craniofacial Research ; the U.S. National Institute of Child Health and & Human Development ; the New Zealand Health Research Council ; the Yad Hanadiv Rothschild Foundation ; the Jacobs Foundation