
DUKE UNIVERSITY NEWS
Duke University Office of News & Communications
<http://www.dukenews.duke.edu>

EMBARGOED FOR RELEASE: 3 p.m. ET Monday, Nov. 17, 2014

CONTACT: Karl Leif Bates
(919) 681-8054
karl.bates@duke.edu

CREDIT SCORE CAN ALSO DESCRIBE HEALTH STATUS

DURHAM, N.C. -- A credit score doesn't just reduce a person's entire financial history down to a single number and somehow predict their credit-worthiness.

It might also be saying something about a person's health status, too, according to a new analysis from a long-term study of the physical and mental health of more than 1,000 New Zealanders who have been monitored continuously from birth to age 38.

The latest paper from the study, appearing this week in the Proceedings of the National Academy of Sciences, has found a strong relationship between low credit scores and poor cardiovascular health.

This doesn't mean that poor financial management hurts your health, post-doctoral researcher Salomon Israel of Duke University is quick to point out. It's that the sort of personal attributes that can lead to a poor credit score can also contribute to poor health.

This and other studies from the Dunedin Multidisciplinary Health and Development Study in New Zealand have found that self-control, planning ahead and perseverance are attributes that predict both better financial status and better health.

"What it comes down to is that people who don't take care of their money don't take care of their health," said study leader Terrie Moffitt, who is the Nannerl O. Keohane university professor of psychology and neuroscience at Duke. She said this study confirms what the insurance and financial industries may already understand.

Backtracking into the data on these study participants, the researchers found that about 20% of the relationship between credit scores and heart health was accounted for by the attitudes, behaviors and competencies displayed by the study members when they were younger than age 10.

"We're showing that these things take root early in life," Israel said.

Harvard economist David Laibson, who was not involved in the research, said the study "fundamentally transforms our understanding of the psychological factors that connect our health and wealth."

Lamar Pierce, an associate professor of organization & strategy at Washington University in St. Louis, agreed. "This study is important because it identifies common cognitive foundations long before financial and physical health problems emerge," said Pierce, who

was not involved in this study. "It provides hope that early life intervention can impede the development of life-long patterns of illness and financial struggle."

Using a standard measure called the Framingham cardiovascular risk score, the Duke researchers estimated the "heart age" of their participants, based on blood pressure, cholesterol levels, blood sugar and smoking habits. At age 38, the participants' Framingham "heart ages" ranged from 22 to 85 years. Participants with higher credit scores had younger "heart ages." The components of the Dunedin study's human capital measure -- educational attainment, cognitive ability and self-control -- each predicted higher credit scores and younger heart age.

The idea of checking credit scores against the detailed personal data in the Dunedin study came from a conversation Moffitt had with her seatmate on a plane about a decade ago. When she told her travelling companion from the life insurance industry that she studied self-control and life outcomes, he said, "We do that too, but we use credit scores."

"The thing that's so compelling about credit scores is that they're both predictive and retrospective," said co-author Avshalom Caspi, the Edward M. Arnett professor of psychology and neuroscience, psychiatry & behavioral sciences at Duke. "They offer a window on the future, but also a window on the past."

In recent years, credit scores have been used for pre-employment screening and many other functions beyond their original intent, Israel said. This study seems to bear out their usefulness as a proxy for a person's reliability and steadfastness, and in turn how healthy they may be.

"Our findings suggest that life insurance companies that acquire an applicant's credit score are also indirectly acquiring information about that applicant's educational attainment, intelligence and personality, right back to childhood," the authors wrote.

The link might work the other way as well. In less developed countries where credit scores aren't available, a Harvard team has been experimenting with using a 40-minute personality quiz to assess candidates' credit-worthiness for microloans.

This research was supported by the New Zealand Health Research Council, US National Institute on Aging (AG032282, T32-AG000029), the UK Medical Research Council ((MR/K00381X) the Jacobs Foundation and the Yad Hanadiv Rothschild Foundation.

CITATION: "Credit Scores, Cardiovascular Disease Risk, and Human Capital," Salomon Israel, Avshalom Caspi, Daniel Belsky, HonaLee Harrington, Sean Hogan, Renate Houts, Sandhya Ramrakha, Seth Sanders, Richie Poulton, Terrie Moffitt. Proceedings of the National Academy of Sciences, Nov. 17, 2014. DOI: 10.1073/pnas.1409794111

#