## Worrying About Worry: Some Types of Neuroticism May Promote Greater Health Vigilance

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It's safe to say COVID-19 has given each of us an abundance of things to worry about. In addition to the stress brought on by social distancing, homeschooling, and shifting professional circumstances, the coronavirus pandemic also forces us to confront the nature of worry itself: When a threat is real, where exactly is the line between allowing anxiety to rule our lives and worrying just enough to keep ourselves and those we love safe?

In previous research, people high in neuroticism, a personality trait associated with anxiety, worry, and fear, have been found to be less physically healthy and more likely to be diagnosed with mental health disorders. New research in <u>Current Directions in Psychological Science</u> suggests that individuals can score high in neuroticism for very different reasons, however. Individuals who score highly due to general feelings of anxiety and tension do indeed appear to have worse health outcomes, write Alexander Weiss and APS James McKeen Cattell Fellow Ian J. Deary (University of Edinburgh), but those who report more concrete feelings of vulnerability may have better physical health than average due to increased bodily vigilance.

"Neuroticism may be related to health-promoting behaviors in some contexts, health-harming behaviors in other contexts, and health-neutral behaviors in still other contexts," Weiss and Deary explain.

The researchers note that while some studies have found evidence of a link between high neuroticism and impulsive health-harming behaviors such as smoking, for example, others suggest that high neuroticism paired with high conscientiousness, a personality trait associated with self-control and long-term planning, may be protective against such health risks.

To further examine how "anxious-tense neuroticism" and "worried-vulnerable neuroticism" influence health outcomes, Weiss, Deary, and colleagues analyzed data collected from 321,465 participants available through the UK Biobank, a large medical research project that collected data from individuals aged 40-69 years from 2006 to 2015.

In the 2017 study in *Psychological Science*, Weiss and Deary found that participants who had self-reported high levels of anxious-tense neuroticism (e.g., answering yes to "Would you call yourself a nervous person?") were 6% more likely than average to have died of any cause, including cancer, cardiovascular disease, respiratory disease, and accidents, during the study period of 2006 to 2015. Individuals who had scored themselves high in worried-vulnerable neuroticism (e.g., "Are you a worrier?" or "Are your feelings easily hurt?"), on the other hand, were 8% less likely than average to die during the same period.

Weiss and Deary also investigated the role of genetics in neuroticism by comparing the genomes of 270,059 UK Biobank participants. This revealed that general neuroticism, anxious-tense neuroticism, and worried-vulnerable neuroticism were all associated with specific gene variants in different regions of the genome. Additionally, while the researchers found that all of these high neuroticism variants were associated with increased risk of mental health disorders, genes associated with worried-vulnerable neuroticism were linked to better physical health outcomes.

"The special neuroticism factor, whose items relate to being worried and feeling vulnerable . . . may be related to better health because it promotes health vigilance," Weiss and Deary suggest. These individuals may be more likely to report symptoms, and thus more likely to be diagnosed and treated at earlier stages of a disease.

These findings reflect the multifaceted nature of neuroticism, Weiss and Deary note in the 2020 study.

"Although there are few ways that people can have very low or very high levels of neuroticism (they would have to have very high or very low levels of all facets), as one moves away from these extremes, there are many ways that people can get the same score," the authors explain.

It's also possible for two people with the same or very different neuroticism scores to be equally at risk of a particular health outcome due to the way health risks interact, they continue.

"As a medical or psychological professional, or as a friend, loved one, or acquaintance, we often tell others not to worry so much. Health-wise, we have found phenotypic and genetic evidence for an upside to worry," Weiss and Deary conclude.

## References

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