A new study indicates that the brain-boosting benefits of psychological resilience — including overcoming conditions like persistent loneliness — might offset harm and ultimately lower one’s risk of developing dementia later in life, leaving people more cognitively protected than those who have never felt lonely at all.

Loneliness isn’t considered a clinical disease, but it is certainly associated with health problems — from insomnia to depression to stroke. And when it comes to brain health, study after study has found that feeling lonely and the risk of experiencing a neurodegenerative disease during one’s lifetime are somehow linked — a relationship that is at once little understood and so undeniable that remedying social isolation has been named one of 12 key lifestyle factors that could help prevent 40 percent of all dementia cases.

Now, researchers at Boston University offer a twist on the science so far: People who’ve experienced persistent loneliness for years and who then recover from loneliness are even less likely to develop dementia in their lifetimes than people who’ve never felt lonely at all.
The team set out to learn more about the relationship between loneliness (which they defined as “a subjective feeling resulting from a perceived discrepancy between desired and actual social relationships”) and dementia, the most common form of which is Alzheimer’s. In the study, the results of which were published this week in the journal Alzheimer’s and Dementia, they analyzed data from 2,880 cognitively normal adults, looking closely at whether persistent loneliness — a feeling of loneliness that spans years — more strongly predicted the future development of dementia and Alzheimer’s than transient loneliness — loneliness stemming from extreme but resolvable circumstances, like a COVID-19 lockdown.

They also sought to learn whether this relationship was independent from depression or one in the same, and whether and known genetic risk factors for Alzheimer’s, like the APOE 4 allele, had any influence.

After accounting for age, sex, education, social network, living alone, physical health and genetic risk factors, the team found that persistent loneliness in one’s middle-age years was indeed associated with higher Alzheimer’s risk. The data showed that participants who reported feeling persistently lonely between ages 45 and 64 (about 9 percent of participants) had a 91 percent higher risk for dementia and a 76 percent higher risk for Alzheimer’s, compared to people who report that they did not feel lonely (just under three quarters of participants). Comparatively speaking, of 13 percent of those who reported persistent loneliness developed dementia, compared to 7 percent of those who reported no feelings of loneliness.

Meanwhile, they found that shorter-term, circumstantial feelings of loneliness were linked to lower risk, compared with no loneliness at all.
Dr. Wendy Qiu, a professor of psychiatry and pharmacology and experimental therapeutics and a study author, said this is in part because the neuropsychological benefits of overcoming adverse life events is so protective, it cancels out the harm of loneliness to the brain, bolstering cognitive health beyond the baseline.

“Whereas persistent loneliness is a threat to brain health, psychological resilience following adverse life experiences may explain why transient loneliness is protective in the context of dementia onset,” Qiu said in a press release.

“We think because human beings are social and need social interaction, without … interaction, the brain can lose external stimulation, which can increase Alzheimer’s risk,” she told United Press International of the study. “As a society, we can do things to intervene in loneliness, like providing counseling and reaching out to those who are facing life stressors or grieving.”

The findings of higher risk are in line with earlier findings, including a Florida State University study observed 12,030 participants over the course of 10 years and found that loneliness was linked to a 40 percent higher chance of developing dementia. Likewise, a smaller study out of the Netherlands found that dementia was 64 percent more likely among people who reported persistent feelings of loneliness. Researchers at the University of Michigan found that people who had lost their spouses or who had never married had, across the board, higher dementia risk than married individuals.

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The researchers said that in light of the pandemic and the isolation that has come with it, these findings are hopeful for those who feel lonely now, but could overcome the feeling in time.
To help mitigate loneliness — and its risks — especially in the thick of pandemic isolation, companionship programs that pair young and older adults — both paid and volunteer — have sprung up across the U.S., and tech gadgets from robotic pets to music players have been distributed by various aging agencies and nonprofits to help people stay connected.

Beyond such measures, the team hopes to see further investigation into factors that make individuals resilient against adverse life events, noting that mitigating loneliness can mean not only improving quality of life in the short term, but a longer life of brain health overall.