

Social Connections Drive the ‘Upward Spiral’ of Positive Emotions and Health

May 09, 2013

People who experience warmer, more upbeat emotions may have better physical health because they make more social connections, according to a new study published in [Psychological Science](#), a journal of the [Association for Psychological Science](#).

The research, led by Barbara Fredrickson of the University of North Carolina at Chapel Hill and Bethany Kok of the Max Planck Institute for Human Cognitive and Brain Sciences also found it is possible for a person to self-generate positive emotions in ways that make him or her physically healthier.

“People tend to liken their emotions to the weather, viewing them as uncontrollable,” says Fredrickson. “This research shows not only that our emotions are controllable, but also that we can take the reins of our daily emotions and steer ourselves toward better physical health.”

To study the bodily effects of up-regulating positive emotions, the researchers zeroed in on vagal tone, an indicator of how a person’s vagus nerve is functioning. The vagus nerve helps regulate heart rate and is also a central component of a person’s social-engagement system.

Because people who have higher vagal tone tend to be better at regulating their emotions, the researchers speculated that having higher vagal tone might lead people to experience more positive emotions, which would then boost perceived positive social connections. Having more social connections would in turn increase vagal tone, thereby improving physical health and creating an “upward spiral.”

To see whether people might be able to harness this upward spiral to steer themselves toward better health, Kok, Fredrickson, and their colleagues conducted a longitudinal field experiment.

Half of the study participants were randomly assigned to attend a 6-week *loving-kindness meditation* (LKM) course in which they learned how to cultivate positive feelings of love, compassion, and goodwill toward themselves and others. They were asked to practice meditation at home, but how often they meditated was up to them. The other half of the participants remained on a waiting list for the course.

Each day, for 61 consecutive days, participants in both groups reported their “meditation, prayer, or solo spiritual activity,” their emotional experiences, and their social interactions within the last day. Their vagal tone was assessed twice, once at the beginning and once at the end of the study.

The data provided clear evidence to support the hypothesized upward spiral, with perceived social connections serving as the link between positive emotions and health.

Participants in the LKM group who entered the study with higher vagal tone showed steeper increases in positive emotions over the course of the study. As participants' positive emotions increased, so did their reported social connections. And, as social connections increased, so did vagal tone. In contrast, participants in the wait-list group showed virtually no change in vagal tone over the course of the study.

“The daily moments of connection that people feel with others emerge as the tiny engines that drive the upward spiral between positivity and health,” Fredrickson explains.

These findings add another piece to the physical health puzzle, suggesting that positive emotions may be an essential psychological nutrient that builds health, just like getting enough exercise and eating leafy greens.

“Given that costly chronic diseases limit people's lives and overburden healthcare systems worldwide, this is a message that applies to nearly everyone, citizens, educators, health care providers, and policy-makers alike,” Fredrickson observes.

This work was supported National Institute of Mental Health Grant MH59615.

Those interested in learning more can explore Barbara Fredrickson's recent book, *Love 2.0*, at www.PositivityResonance.com.