

Neuroscientist develops brain vitality index

July 28 2014, by Niki Widdowson



Why is it we are happy to talk about our physical health, like exercise and diet but we are not comfortable talking about brain health? One measure of body health is the body mass index (BMI) but what single indicator do we have to measure brain health?

QUT neuroscientist Professor Selena Bartlett developed the [brain](#) vitality index (BVI) app that combines the latest advances in neuroplasticity neuroscience, brain imaging and mobile technology.

"The BVI app enables all of us to understand our brain health in order to live a vital life," Professor Bartlett said.

"The great breakthrough in neuroscience is that the brain has an amazing capacity for change, that is, the brain can change not just when you are young but forever.

"This means, if we don't like what we are saying to ourselves we can work towards changing this immediately and begin to rewrite our brain stories," said Professor Bartlett, whose work on addiction and obesity neuroscience was recognised with the 2013 Women in Technology (WiT) Biotech Research and the Biotech Outstanding Achievement awards.

"What I have learnt as a neuroscientist is that you are not stuck with the brain you inherited."

Professor Bartlett said she developed the BVI app to help people become aware of their own brain health.

"Often we are not aware of what we are saying to ourselves or the impact this has on our brain health," she said.

"Your brain is a massive computer. If you get up in the morning thinking 'I'm sad,' or 'I'm worthless', it's like entering a search for 'worthless'.

"Your brain then sets about finding the evidence to support these thoughts and so the whole negative feedback loop becomes part of your brain's hardware.

"Our brains hold onto negative thoughts more than positive thoughts and if we maintain and reiterate endless negative self-narratives it causes stress.

"We all have a genetic susceptibility to stress which is stored in the amygdala where memory is held the longest because it's one of the oldest

parts of the brain, evolutionarily speaking.

"The app aims to help people begin to apply the latest ideas in neuroplasticity and dampen or override negative thinking to limit stress and let new thoughts be neurally forged into another part of the brain."

Professor Bartlett said rewiring the internal narrative took time and practice until it became automatic.

"The BVI app aims to provide a tool and tailored suggestions to help the brain refocus negative thinking and promote positive thinking. The suggestions are simple and easy to integrate into our lives all the time," she said.

"We have to identify that stress is written into our brains by taking note of the negative thoughts and not feeding them.

"A brain that is fed novelty rather than negativity gets on with life and stays young."

Provided by Queensland University of Technology

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