

Facilitating healthy ageing: investigating neuroprotective effects of mindfulness practice

Results:

The aim of the project was to investigate whether regular, brief mindfulness practice, previously shown to be beneficial in improving attentional control functions, would positively influence the process of cognitive ageing.

During the first phase of the project various measures of cognitive performance were trialled in older participants. Based on the results and practical insights from these pilots a 3-arm longitudinal control trial was run with participants (age 55 – 75 years). The mindfulness group (MG, N=20) engaged in 7 weeks of brief (10 minutes), daily mindful breathing exercises while the active control group (ACG, N=20) engaged in the same amount of cognitive training, similar to available “brain gym” programs. A third waitlist control group (WCG, N=10) only took part in the assessment. At the beginning and end of the programme participants completed four cognitive tasks (the attentional blink task, the Continuous Performance Test, an emotional Stroop task and a spatial short-term memory task). Employing a 64-channel EEG set-up, electrophysiological measures were recorded concurrently.

Currently the extensive dataset is being analysed. A first, cursory analysis suggests that the MG improved above and beyond both control groups on several performance parameters. Additionally, aspects of the event-related potentials, indicative of distinct improvements in attentional functions, appear to be selectively improved in the MG.

As the majority of the MG participants also reported positive influences on their daily life, our preliminary conclusion is that a brief mindful breathing practice can yield positive effects in older participants and may thus be a building block for a lifestyle that facilitates healthy ageing.

Published works:

Area(s) of interest:

Meditation research, mindfulness, cognitive ageing, attentional functions

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