

Mindfulness training in higher education students



Widening participation in higher education in high-income countries has led to an increased focus on the mental health and wellbeing of students. Although data from population surveys, rather than those involving student samples, suggest that students are not at greater risk of mental health problems than their non-student peers,^{1,2} the age at which most students are in higher education coincides with the peak age of onset of mental health problems.³ Therefore, higher education institutions could be a useful setting in which to deliver interventions that have a protective effect on mental health and wellbeing, particularly if they help to develop skills that young people can also use as they make the often challenging transition into the workforce.

Mindfulness training is an example of such an intervention. Mindfulness meditation interventions in both clinical and non-clinical populations have small to moderate effects on various aspects of psychological stress.⁴ Such interventions are increasingly popular among higher education students. In *The Lancet Public Health*, Julieta Galante and colleagues⁵ report the results of a pragmatic randomised controlled trial of an 8 week mindfulness course (Mindfulness Skills for Students [MSS]) for students at the University of Cambridge, UK, provided in the period leading up to examinations—a time when students are likely to have higher levels of stress. The primary outcome was self-reported psychological distress during the examination period, as measured with the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM),

616 students were randomly assigned to receive the MSS course (n=309) or mental health support as usual (n=307). 453 (74%) participants completed the primary outcome measure) and 182 (59%) MSS participants completed at least half of the course. The study design, including adequate power, clearly specified primary outcome, and appropriate analysis and treatment of missing data, substantially improved on that of previous studies, which had small sample sizes and other methodological and reporting issues.

The findings show that the mindfulness intervention reduced distress scores during the examination period

compared with support as usual: mean CORE-OM scores were 0.87 (SD 0.50) in 237 MSS participants versus 1.11 (0.57) in 216 support as usual participants (adjusted mean difference -0.14, 95% CI -0.22 to -0.06; p=0.001), which translated into a moderate effect size (β -0.44, 95%CI -0.60 to -0.29; p<0.0001). 123 (57%) of 214 participants in the support as usual group had distress scores above an accepted clinical threshold level compared with 88 (37%) of 235 participants in the MSS group. Additionally, distress scores in the support as usual group worsened over the year, whereas scores in the MSS group improved after the course and were maintained during examinations. Importantly, active monitoring revealed no adverse reactions related to self-harm, suicidality, or harm to others.

As with other behavioural interventions, public health impact depends on scalability and sustainability, both at the individual and the organisational level. At the individual level, future research might usefully explore the longer-term effects on participants assigned to the mindfulness intervention. For example, do students continue to meditate, either as a daily habit or as a coping strategy in times of stress and, if so, how does this affect their mental health and wellbeing? At the organisational level, generalisability to other higher education institutions could be investigated, exploring issues such as uptake in students who might have lower levels of academic achievement or who might be less motivated than students at the University of Cambridge. Moreover, for most institutions, ongoing funding is probably necessary to allow new students to access interventions. If this funding is only available in well-resourced institutions, existing equity gaps might be widened. Importantly, focus on interventions that aim to build individual resilience should not come at the expense of interventions that aim to promote wellbeing by improving the structural environments in which students learn.^{6,7}

Nicola J Reavley

Melbourne School of Population and Global Health, University of Melbourne, Melbourne, VIC 3010, Australia
nreavley@unimelb.edu.au

I declare no competing interests.

Copyright © The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

Published Online
December 18, 2017
[http://dx.doi.org/10.1016/S2468-2667\(17\)30241-4](http://dx.doi.org/10.1016/S2468-2667(17)30241-4)
See Editorial page e52
See Articles page e72

- 1 Blanco C, Okuda M, Wright C, et al. Mental health of college students and their non-college-attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Arch Gen Psychiatry* 2008; **65**: 1429–37.
- 2 Cvetkovski S, Reavley NJ, Jorm AF. The prevalence and correlates of psychological distress in Australian tertiary students compared to their community peers. *Aust N Z J Psychiatry* 2012; **45**: 457–67.
- 3 Kessler RC, Angermeyer M, Anthony JC, et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry* 2007; **6**: 168–76.
- 4 Goyal M, Singh S, Sibinga EM, et al. Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Intern Med* 2014; **174**: 357–68.
- 5 Galante J, Dufour G, Vainre M, et al. A mindfulness-based intervention to increase resilience to stress in university students (the Mindfulness Student Study): a pragmatic randomised controlled trial. *Lancet Public Health* 2017; published online Dec 18. [http://dx.doi.org/10.1016/S2468-2667\(17\)30231-1](http://dx.doi.org/10.1016/S2468-2667(17)30231-1).
- 6 Olsson CA, Bond L, Burns JM, Vella-Brodrick DA, Sawyer SM. Adolescent resilience: a concept analysis. *J Adolesc* 2003; **26**: 1–11.
- 7 Reavley NJ, Ross AM, Killackey E, Jorm AF. Development of guidelines for tertiary education institutions to assist them in supporting students with a mental illness: a Delphi consensus study with Australian professionals and consumers. *PeerJ* 2013; **1**: e43.