

Article:

## **Acute Effects of Online Mind–Body Skills Training on Resilience, Mindfulness, and Empathy**

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Abstract:

**Background.** Some studies have begun to show benefits of brief in-person mind–body skills training. We evaluated the effects of 1-hour online elective mind–body skills training for health professionals on mindfulness, resilience, and empathy. **Methods.** Between May and November, 2014, we described enrollees for the most popular 1-hour modules in a new online mind–body skills training program; compared enrollees' baseline stress and burnout to normative samples; and assessed acute changes in mindfulness, resilience, and empathy. **Results.** The 513 enrollees included dietitians, nurses, physicians, social workers, clinical trainees, and health researchers; about 1/4 were trainees. The most popular modules were the following: Introduction to Stress, Resilience, and the Relaxation Response (n = 261); Autogenic Training (n = 250); Guided Imagery and Hypnosis for Pain, Insomnia, and Changing Habits (n = 112); Introduction to Mindfulness (n = 112); and Mindfulness in Daily Life (n = 102). Initially, most enrollees met threshold criteria for burnout and reported moderate to high stress levels. Completing 1-hour modules was associated with significant acute improvements in stress ( $P < .001$ ), mindfulness ( $P < .001$ ), empathy ( $P < .01$ ), and resilience ( $P < .01$ ). **Conclusion.** Online mind–body skills training reaches diverse, stressed health professionals and is associated with acute improvements in stress, mindfulness, empathy, and resilience. Additional research is warranted to compare the long-term cost-effectiveness of different doses of online and in-person mind–body skills training for health professionals.

Discussion:

This study examining the acute effects of brief, online MBST for diverse health professionals had 4 major findings. First, MBST was popular; enrollment occurred among diverse health professionals and trainees. Second, participants initially reported high levels of stress and burnout, suggesting that the training was attractive to those who might benefit from it. Third, the most popular modules included not just mindfulness, but a variety of mind–body skills, including Relaxation Response and Guided Imagery/Hypnosis; the only group of MBST that did not attract at least 100 registrants within the first 7 months was positive affect–generating meditation practices. Finally, completing even brief, 1-hour modules online outside of a group setting was associated with significant acute improvements in stress, empathy, resilience, and mindfulness. This is one of the few studies to include a variety of health professionals and trainees, including dietitians and researchers.<sup>43</sup> Most studies of mind–body training focus on a single group of professionals or trainees such as physicians or nurses. Although the project successfully recruited more than 1000 diverse registrants, only slightly more than 50% completed any modules, and of these, most completed only 1 to 2 of the available 12 modules. This low completion rate is consistent with our previous experience with online, noncredit, nonrequired, no-deadline elective training. The low completion rates raises questions about why participants choose to continue or stop training, what factors might improve completion rates, and how the impact might differ for different “doses” or combinations of the curriculum. Although “only” 513 participants completed 1 or more modules, this is still a substantially larger number than the number of

participants who enroll in most in-person MBST training programs, which typically have sample sizes less than 100 participants, and suggests that online training offers large numbers of diverse, busy, stressed health professionals a chance to at least “dip their toes in the water” of mind–body practices. Future studies could explore whether registering for online MBST increases later enrollment in more in-depth, in-person MBST or increases patient counseling or referred to MBST. As in other studies of individual types of health professionals, the diverse participants in this project reported high levels of stress and burnout. More than 50% met criteria for burnout, which is similar to the rates of 40% to 60% reported in individual groups of health professionals. Participation by highly stressed health professionals means that the online MBST training is not simply “preaching to the choir” of professionals who already have high levels of mindfulness, empathy, and resilience but is instead reaching its target audience of those whose skills could be improved with training. Because other strategies, such as duty hour restriction, have not proven universally effective in preventing burnout, additional strategies are needed to help build resilience and manage stress to maintain empathy and mindfulness, and thereby improve the quality of care provided by diverse professionals. As health care undergoes rapid change, there is likely to be an increased need for accessible, affordable, attractive, non-stigmatizing MBST as part of a group of strategies to protect and promote clinicians’ health and caring skills. The MBST offered in this project included multiple types of skills—mindfulness, relaxation response (focused attention meditation), guided imagery/hypnosis, and positive affect–generating meditation (eg, gratitude and loving-kindness–focused meditation). This differs from most previous types of MBST, which tend to focus on 1 type of mind–body skill, and offers unique insights into the types of mind–body topics that appeal to health professionals. Given their introductory titles, we were not surprised that the Introduction to Stress, Resilience, and Relaxation Response training and Introduction to Mindfulness modules were 2 of the most popular modules. However, we were surprised that Autogenic Training was the second most popular module. This raises the questions of why health professionals find certain topics more attractive than others and whether certain kinds of training are best suited to certain kinds of professionals. Was Autogenic Training popular because it was a less familiar, more novel topic, or was there some other reason for its popularity?