Topical Review Article

Group Online Mindfulness Training: Proof of Concept

Journal of Evidence-Based Complementary & Alternative Medicine
2015, Vol. 20(1) 73-75

DOI: 10.1177/2156587214553306
cam.sagepub.com
SAGE

Kathi J. Kemper, MD, MPH[1] and Jonathan Yun, MD[1]

Abstract

Mindfulness-based stress reduction training is attractive, but training with an expert teacher is often inconvenient and costly. This proof-of-concept project assessed the feasibility of providing a hybrid of free online mindfulness-based stress reduction training with small group peer facilitation. Six medical students asked a family medicine resident with 5 years of meditation experience but no formal training as a teacher to facilitate 8 weekly group sessions using a free online mindfulness-based stress reduction course. They completed pre- and posttraining questionnaires online. Six of the 7 trainees completed at least half the sessions. Completers and noncompleters had similar age (29 years), gender (about half male), and health status. Changes in the expected direction were observed for perceived stress, mindfulness, resilience, and confidence in providing calm, compassionate care. The hybrid of online mindfulness-based stress reduction training with peer support is feasible. Additional research is warranted to formally evaluate the impact of this approach.

Keywords

mindfulness, self-compassion, medical student, online learning

Received September 2, 2014. Accepted for publication September 2, 2014.

Introduction

Given the high stress and burnout levels reported by physicians and trainees, and their adverse effects on health and quality of care, interest has emerged in the protective effect of mindfulness training.[1-6] The most established training programs rely on mindfulness-based stress reduction, adapted for health professionals; these programs typically required a highly trained teacher and at least 20 hours of in-person training.[3,5] Online training has been effective in small studies of patients, but has not been evaluated for health professionals.[7-10] The convenience of online training appeals to busy health professionals,[11] but some may feel more comfortable with the group setting and having access to an experienced practitioner to answer questions in real time. However, no studies have evaluated the feasibility of providing a hybrid training model combining online training with in-person peer facilitation.

A group of medical students at our institution decided to pursue online training together, meeting for 1 hour once a week for 8 weeks to review free online mindfulness-based stress reduction classes (Palousemindfulness.com) with a resident (JY) who had some prior meditation experience but was not formally trained as a mindfulness-based stress reduction facilitator.

We conducted proof-of-concept study to answer 3 questions: (*a*) How many trainees would complete at least half of the 8 sessions? (*b*) Would those who completed the training be similar those who dropped out of training? (*c*) What factors appear most promising to study in a larger, adequately powered controlled trial?

Methods

Subjects were eligible if they participated in the hybrid online, peer-facilitated training. All participants agreed to participate.

Using an anonymous online survey, we asked the students to complete standard questionnaires assessing demographic (age and gender) and health (PROMIS global physical and mental health) characteristics as well as stress (Cohen's 10-item Perceived Stress Scale),[12] mindfulness (10-item Cognitive and Affective Mindfulness Scale–Revised),[13] resilience (Smith's 6-item Brief Resilience Scale),[14] self-compassion (Neff's 12-item Self-Compassion Scale),[15] self-efficacy in providing nonpharmacologic therapies, and self-confidence in providing calm, compassionate care.[16]

The peer facilitator attended all sessions. One of the participating students started a Facebook page for the group to discuss the material and their experiences. The Facebook page was not monitored for content or volume of use to maintain group privacy.

[1] The Ohio State University, Columbus, OH, USA

Corresponding Author:
Kathi J. Kemper, MD, MPH, Center for Integrative Health and Wellness, The Ohio State University College of Medicine, 503 McCampbell Hall, 1581 Dodd Dr, Columbus, OH 43210, USA.
Email: Kathi.Kemper@osumc.edu

Table 1. Participant Characteristics.

Characteristic	Entire Group (N = 7)	Questionnaire Completers (N = 4)
PROMIS Global Physical Health *T*-score (50 is population mean)	47.7	47.7
PROMIS Global Mental Health *T*-score (50 is population mean)	44.5	43.5

Table 2. Pre–Post Changes in Self-Report Measures.

Characteristic	Pretraining	Posttraining
Frequency of meditation practice	Less than once weekly	Twice weekly
Mindfulness (CAMS-R) item average	2.5 ± 0.3	3.2 ± 0.4
Perceived Stress Scale	13.3 ± 8.3	11.8 ± 7.8
Resilience, item average	3.3 ± 1.5	3.8 ± 1.2
Calm, Compassionate Care Confidence Scale (maximum possible score is 100)	55.3 ± 14	77.5 ± 6
Self-Compassion Scale (Total of 6 subscales on SF)	40.5 ± 3.8	41.2 ± 4.9
Self-efficacy in providing nondrug care to relieve symptoms (maximum possible score is 100)	40.8 ± 3	41 ± 6.2

Abbreviations: CAMS-R, Cognitive and Affective Mindfulness Scale–Revised; SF, short form.

Because this was a proof-of-concept study with a small sample, statistical comparisons were not made; simple descriptive statistics were used to describe participants.

This study was approved by the Ohio State University Office of Research Institutional Review Board. Participants received $10 for completing the baseline survey and $15 for completing the follow-up survey.

Results

Of the 7 medical trainees (including the facilitator) who began the program, 1 dropped out and 2 did not complete posttraining questionnaires; aside from the 1 drop out, 3 attended 4 sessions, and 3 attended 5 sessions of the 8 scheduled. Overall, 6/7 (86%) completed at least half the training sessions.

Compared with the 7 who began the training, the 4 who completed the follow-up survey had similar age (29 years), gender (about half male), and health status (Table 1). Prior to training, participants practiced mind–body skills less than once weekly on average; their more common strategies for managing stress included watching TV (100%), eating (100%), listening to music (86%), talking with family member or friend (71%), sleeping (57%), or exercising (57%).

Changes in the expected direction (significance testing not done) were observed for perceived stress, mindfulness, resilience, and confidence in providing calm, compassionate care (Table 2). Furthermore, after the training the percentage of participants who used meditation as a stress management strategy increased from 25% to 100%, while the percentage using TV and eating fell from 100% to 50%. No adverse events were reported.

Discussion

This proof-of-concept study suggests that hybrid online, small group facilitated mindfulness is feasible even among busy health professionals. In this group of medical students, 6/7 completed at least half the sessions. Furthermore, we found that, like earlier studies, those who completed the outcome assessment were similar to those who did not complete all the assessments.[16] Finally, the qualities that appear to be most likely to be useful to measure in future adequately powered and designed (with control groups) studies include the following: changes in coping strategies (including an increase in meditation practice), mindfulness, resilience, and confidence in providing calm, compassionate care.

As a proof-of-concept project, this study has several limitations. Its small sample size precluded formal significance testing, and 2 of the participants who completed at least half the sessions did not complete outcome questionnaires. The study was done at one academic medical center, and the capacity of trainees at other institutions to provide peer support in this hybrid model cannot be inferred. Although several relevant parameters were measured, we did not include measures of burnout, anxiety, or depression, which might also be useful.

Despite these limitations, this proof-of-concept study supports a hybrid training model that includes online training with peer support as a strategy to encourage mind–body practices among medical students. Additional research is warranted to formally evaluate the impact of such interventions in these and other groups of health professionals.

Acknowledgments

We are grateful to the trainees who participated in the group and to Jennifer Long for creating and distributing the online questionnaires.

Author Contributions

KK co-conceived the project, analyzed the data, and drafted, edited, and finalized the article. JY facilitated the small groups, assisted in interpreting the data, and assisted in revising and editing the article.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Ethical Approval

This project was approved by the OSU Institutional Review Board (2013 B0611).

References

1. de Vibe M, Solhaug I, Tyssen R, et al. Mindfulness training for stress management: a randomised controlled study of medical and psychology students. *BMC Med Educ*. 2013;13:107.
2. Galantino ML, Baime M, Maguire M, Szapary PO, Farrar JT. Association of psychological and physiological measures of stress in health-care professionals during an 8-week mindfulness meditation program: mindfulness in practice. *Stress Health*. 2005;21:255-261.
3. Krasner MS, Epstein RM, Beckman H, et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA*. 2009;302:1284-1293.
4. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172:1377-1385.
5. Fortney L, Luchterhand C, Zakletskaia L, Zgierska A, Rakel D. Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: a pilot study. *Ann Fam Med*. 2013;11:412-420.
6. Regehr C, Glancy D, Pitts A, Leblanc VR. Interventions to reduce the consequences of stress in physicians: a review and meta-analysis. *J Nerv Ment Dis*. 2014;202:353-359.
7. Cavanagh K, Strauss C, Cicconi F, Griffiths N, Wyper A, Jones F. A randomised controlled trial of a brief online mindfulness-based intervention. *Behav Res Ther*. 2013;51:573-578.
8. Gluck TM, Maercker A. A randomized controlled pilot study of a brief web-based mindfulness training. *BMC Psychiatry*. 2011;11:175.
9. Krusche A, Cyhlarova E, Williams JM. Mindfulness online: an evaluation of the feasibility of a web-based mindfulness course for stress, anxiety and depression. *BMJ Open*. 2013; 3:e003498.
10. Morledge TJ, Allexandre D, Fox E, et al. Feasibility of an online mindfulness program for stress management—a randomized, controlled trial. *Ann Behav Med*. 2013;46:137-148.
11. Kemper KJ, Bulla S, Krueger D, Ott M, McCool J, Gardiner P. Nurses' experiences, expectations, and preferences for mind-body practices to reduce stress. *BMC Complement Altern Med*. 2011;11:26.
12. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav*. 1983;24:385-396.
13. Feldman G, Hayes A, Kumar S, Greeson J, Laurenceau J. Mindfulness and emotion regulation: the development and initial validation of the Cognitive and Affective Mindfulness Scale–Revised (CAMS-R). *J Psychopathol Behav Assess*. 2007;29:177-190.
14. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: assessing the ability to bounce back. *Int J Behav Med*. 2008;15:194-200.
15. Raes F, Pommier E, Neff KD, Van Gucht D. Construction and factorial validation of a short form of the Self-Compassion Scale. *Clin Psychol Psychother*. 2011;18:250-255.
16. Kemper KJ, Larrimore D, Dozier J, Woods C. Electives in complementary medicine: are we preaching to the choir? *Explore (NY)*. 2005;1:453-458.