

Bringing Mindfulness into Medical Practice: UBC's New Family Medicine Residency Program Delivers Mindfulness-Based Stress Reduction Curriculum

Devon Christie^{a,°}, MD CCFP GPPA

Citation info: UBCMj. 2015; 7.1 (13-15)

[°]Corresponding author: devon.christie@gmail.com

^aConnect Health, Centre for Integrative and Functional Medicine, Vancouver, BC

This summer, four R1 Rural Family Medicine residents will commence their postgraduate training in the inaugural UBC Kootenay Boundary Rural Family Medicine residency program. As part of their Behavioural Medicine curriculum, they will participate in a 6-week Mindful Stress Reduction program, an adaptation of the traditional 8-week Mindfulness Based Stress Reduction (MBSR) program that was founded at the University of Massachusetts in 1979 by Jon Kabat-Zinn. MBSR has been subject to numerous RCTs and meta-analyses showing its effectiveness to alleviate symptoms and improve quality of life in cancer, cardiovascular disease, chronic pain, depression, anxiety disorders, and in prevention in healthy adults and children.¹⁻⁴

A 2013 review identified 14 medical schools that offer mindfulness programs, including McGill, Brown, Georgetown, Duke, and Harvard.⁵ Only two of those institutions incorporated mindfulness as a mandatory component of their undergraduate medical curricula: University of Rochester and Monash Medical School (Australia).⁵ The Kootenay Boundary program will likely be the first postgraduate family medicine program to incorporate training in mindfulness into its core curriculum, in partial fulfillment of the curriculum's mandate for innovation. A recent publication shows that interest in mindfulness training among medical students is higher in those who are in clinical (72%) vs. preclinical (53%) stages of their training, which supports the integration of mindfulness into a postgraduate core curriculum.⁶

What is mindfulness?

Mindfulness refers to a capacity of mind, whereby one attends to his or her immediate experience arising both from within (e.g. mental states, thoughts, feelings, somatic sensations) and from our environment (e.g. auditory, visual, relationships, home, and work conditions) through vigilant observation while bearing the attitudes of kindness, acceptance, and non-judgment. In Kabat-Zinn's concise words, "paying attention, on purpose, in the present moment, without judgment."⁷ Mindfulness is often learned through meditation, but is not equivalent to it.⁸ Meditation describes varied formal practices (e.g. breath awareness, vocalizations/chanting, mantra, movement/yoga, loving kindness/metta) whereby one practices sustaining attention in the present, thereby cultivating mindfulness. In the MBSR program, formal practices include the body scan, yoga, walking meditation, focused-attention meditations (e.g. to breath, sound, body sensations), and a form of open-monitoring meditation known in MBSR as "choiceless awareness."

Mindfulness has recently become a buzzword, owing largely to increasing media coverage and burgeoning literature, as exemplified by recent CBC coverage of a UBC study published January 2015 showing that mindfulness decreased stress and improved optimism and math abilities of grade four and five students in Coquitlam, B.C.⁹ A PubMed search of the term mindfulness returned 2231 citations published in the last ten years. By comparison, there were only 115 studies published in the preceding decade.

Why teach mindfulness to physicians? A balm for burnout

There is rising awareness about increasing rates of burnout among physicians, including estimates of up to 50% among residents, regardless of year of training.¹⁰ A 2015 US survey revealed 50% of family physicians are burnt out, a number that increased from 43% in 2013.¹¹ The estimated costs of burnout among Canadian physicians is \$ 213.1 million, with family physicians accounting for 58.8% of the costs.¹² While burnout is not a recognized disorder in The Diagnostic and Statistical Manual of Mental Disorders, the World Health Organization International Classification of Diseases (ICD-10) defines burnout as "a state of vital exhaustion."¹³ Burnout has three measurable dimensions: emotional exhaustion from overwhelming work demands, depersonalization (impersonal response toward patients or coworkers), and perceived lack of personal accomplishment.¹³ Burnout can lead to anxiety, substance abuse, depression, addiction, and suicide.¹⁴ Suicide is the only cause of death that is higher in physicians than the general population, and while rates are higher in both genders compared to all other professions, the rate in female physicians is an incredible 250-400% higher than the general population.¹⁵ Mindfulness is one of the few self-care practices with evidence of benefit for physician wellness.¹⁶ Encouraging studies show that mindfulness and meditation may play a protective role in the prevention

and management of burnout.¹⁷ Medical students who participate in mindfulness programs develop reductions in psychological distress and burnout, and increased capacity for empathy.⁵ One week of compassion meditation training was found to counterbalance empathy fatigue and was accompanied by corresponding changes in the regions of the brain associated with compassion, positive emotions, and affiliation, thus supporting this as a possible coping strategy when confronted with distress of others.¹⁸

Improved safety in patient care

Studies also show that physician well-being affects patient care.¹⁹ Physicians have a professional obligation to maintain good health and practice good medicine, including making correct diagnoses and appropriate therapeutic decisions.¹³ Research shows meditators have improved perception, increased reaction-time consistency, decreased reactivity to stressful stimuli, faster return to baseline activity after stress arousal, decreased activity in anxiety-related brain regions (amygdala, insular cortex),

There is rising awareness about increasing rates of burnout among physicians, including estimates of up to 50% among residents, regardless of year of training. A 2015 US survey revealed 50% of family physicians are burnt out, a number that increased from 43% in 2013.

better control in buffering physiological responses to stressors (inflammatory and stress hormones), and even shrinkage of the amygdala over longer periods of practice.²⁰ The Canadian Medical Protective Association Good Practices Guide recommends physicians “improve self-awareness and mindfulness” — including recognizing fatigue, being alert to emotions, and recognizing that stress may interfere with reasoning — in order to increase situational awareness, one of the human factors that supports safe care and reduces medico-legal risk.²¹

Self-awareness and relationship-centred care

The College of Family Practitioners of Canada (CFPC) Principles of Family Medicine states, “family physicians have an understanding and appreciation of the human condition, especially the nature of suffering and patients’ response to sickness. They are aware of their strengths and limitations and recognize when their own personal issues interfere with effective care.”²² Self-awareness is the key to truly understanding the human condition and the nature of suffering, and it can be cultivated through mindfulness. Furthermore, mindful practitioners can attend to their own physical, mental, and emotional processes during patient encounters, enabling them to internally self-regulate while listening attentively and acting with “compassion, technical competence, presence, and insight.”²³ This ultimately fosters a cultural shift from patient-centred care, where physicians tend to focus solely on the needs of the patient, to relationship-centred care.²⁴ This reorientation toward mutuality highlights not only what we give but also what we receive in our practice, and increases both patient and physician satisfaction, and resilience.^{25,26}

Medical training asks students who are often perfectionistic at baseline to acquire an overwhelming amount of knowledge in an environment of cross-examinations and occasional real abuse,^{27,28} while at the same time being exposed to highly emotionally charged and sometimes horrific situations in a

culture void of routine psychological and emotional integration opportunities.²⁹ This commonly leads to patterns of emotional distancing and repression, to sacrificing one’s own wellness, and eventually, to burnout. If not addressed prior to entering one’s career, these patterns can only provide a disservice to doctor and patient alike. It is imperative that medical curricula evolve to formally incorporate elements such as mindfulness practice that can serve to redress these patterns and plant the seed for lifelong attitudes and behaviours that foster physician self-awareness and well-being. This year, in line with leading medical institutions worldwide, UBC will be taking this step in Family Medicine training.

disclosures

Dr. Christie is a member of the clinical faculty at UBC, providing instruction to the UBC Kootenay Boundary Rural Family Medicine residency program. She has been involved in curriculum planning for the residency program as outlined in the article. She is also involved in planning a mindfulness and resilience program for healthcare providers at the Kalein Hospice Centre, where she works as a faculty member. She teaches mindfulness based stress reduction (as an MSP-funded group medical visit, where medically indicated) to patients. Dr. Christie also receives no compensation from any private parties.

references

1. Gotink RA, Chu P, Busschbach JJ, Benson H, Fricchione GL, Hunink MG. Standardized mindfulness-based interventions in health-care: an overview of systematic reviews and meta-analyses of RCTs. *PLoS One*. 2015 Apr 16;10(4):e0124344. doi: 10.1371/journal.pone.0124344. eCollection 2015.
2. Keng S-L, Smoski MJ, Robins CJ. Effects of mindfulness on psychological health: a review of empirical studies. *Clin Psychol Rev*. 2011;31:1041-56.
3. Grossman P, Niemann L, Schmidt S, Walach H. Mindfulness-based stress reduction and health benefits: a meta-analysis. *J Psychosom Res*. 2004;57:35-43.
4. Jorback LO, Arendt M, Ørnbøl E, Fink P, Walach H. Mindfulness-based stress reduction and mindfulness-based cognitive therapy—a systematic review of randomized controlled trials. *Acta Psychiatr Scand*. 2011;124:102-19.

5. Dobkin PL, Hutchinson TA. Teaching mindfulness in medical school: where are we now are where are we going? *Med Educ*. 2013;47:768-79.
6. Van Dijk I, Lucassen PL, Speckens AE. Mindfulness training for medical students in their clinical clerkships: two cross sectional studies exploring interest and participation. *Med Educ*. 2015 Feb;15(24):1-8.
7. Kabat-Zinn J. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress Pain and Illness (Revised and Updated Edition)*. New York: Bantam Books; 2013.
8. Briere J. *Pain and Suffering: A Synthesis of Buddhist and Western Approaches to Trauma*. In: Folette VM, Briere J, Rozelle D, Hopper JW, and Rome DI. *Mindfulness Oriented Interventions for Trauma: Integrating Contemplative Practices*. New York & London: The Guildford Press; 2015. p. 11-30.
9. British Columbia: On the Coast, All Points West CBC News. Goldie Hawn's mindfulness program makes kids better at math, says UBC. CBC My Region [Internet]. 2015 [updated 2015 Jan 28; cited 2015 Apr 24]. Available from: <http://www.cbc.ca/m/touch/canada/britishcolumbia/story/1.2932715>.
10. Ishak WW, Lederer S, Mandili C, Nikravesh R, Seligman L, Vasa M, et al. Burnout during residency training: a literature review. *J Grad Med Educ*. 2009;1:236-42.
11. Peckham C. Medscape Physician Lifestyle Report 2015. [Internet]. 2015 Jan [cited 2015 Apr 28]. Available from: <http://www.medscape.com/features/slideshow/lifestyle/2015/public/overview>.
12. Dewa CS, Jacobs P, Thanh NX, Loong D. An estimate of the cost of burnout on early retirement and reduction in clinical hours of practicing physicians in Canada. *Health Serv Res* [Internet]. 2014 [cited 2015 Apr 25];14(254). Available from: <http://www.biomedcentral.com/1472-6963/14/254>.
13. Fralick M, Flegel K. Physician Burnout: Who will protect us from ourselves? *Can Med Assoc J* [Internet]. 2014 Jun [cited 2015 Apr 25]. Available from: <http://www.cmaj.ca/content/early/2014/06/02/cmaj.140588.full.pdf>.
14. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet*. 2009;374:1714-21.
15. American Foundation for Suicide Prevention. Facts About Physician Suicide [Internet]. 2015 [cited 2015 Apr 27]. Available from: <https://www.afsp.org/preventing-suicide/our-education-and-prevention-programs/programs-for-professionals/physician-and-medical-student-depression-and-suicide/facts-about-physician-depression-and-suicide>.
16. Kearney MK, Weininger RB, Vachon ML, Harrison RL, Mount BM. Self-care of physicians caring for patients at the end of life. *J Amer Med Assoc*. 2009;301(11):1155-64.
17. Sotile WM, Sotile MO. Beyond physician burnout: keys to emotional management. *J Med Pract Manage*. 2003;18:314-8.
18. Kliemecki OM, Leiberg S, Lamm C, Singer T. Functional neural plasticity and associated changes in positive affect after compassion training. *Cereb Cortex*. 2013;23(7):1552-61.
19. Halbesleben JR, Rathert C. Linking physician burnout and patient outcomes: exploring the dyadic relationship between physicians and patients. *Health Care Manage Rev*. 2008;33(1):29-39.
20. Ricard M, Lutz A, Davidson RJ. Mind of the meditator. *Scientific American* [Internet]. 2014 Nov [cited 2015 Apr 25]. Available from: www.scientificamerican.com.
21. Canadian Medical Protective Association. Situational Awareness: What is going on around you? [Internet]. Toronto: Canadian Medical Protective Association; 2014 [cited 2015 Apr 23]. Available from: https://www.cmpa-acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Situational_awareness/improve_self-awareness_and_mindfulness-e.html.
22. The College of Family Physicians of Canada. Four Principles of Family Medicine [Internet]. Toronto: College of Family Physicians of Canada; 2015 [cited 2015 Apr 23]. Available from: <http://www.cfpc.ca/principles/#sthash.V01Om590.dpuf>.
23. Epstein RM. Mindful Practice. *J Amer Med Assoc*. 1999 Sep 1;282(9):833-9.
24. Beach MC, Inui TI. Relationship-centered care: a constructive reframing. *J Gen Intern Med*. 2006;21(Suppl 1):S3-8.
25. Krupat E, Rosendranz SL, Yeager CM, Barnard K, Putnam SM, Inui TS. The practice orientations of physicians and patients: the effect of doctor-patient congruence on satisfaction. *Patient Educ Couns*. 2000;39:49-59.
26. Dobie S. Reflections on a well-traveled path: self-awareness, mindful practice, and relationship-centered care as foundations for medical education. *Acad Med*. 2007;82(4):422-7.
27. Silver HK, Glick AD. Medical student abuse: incidence, severity, and significance. *J Amer Med Assoc*. 1990;263:527-73.
28. Lubitz RM, Nguyen DD. Medical student abuse during third-year clerkships. *J Amer Med Assoc*. 1996;275:414-6.
29. Novack DH, Epstein RM, Paulsen RH. Toward creating physician-healers: fostering medical student's self-awareness, personal growth and well-being. *Acad Med*. 1999;74(5):516-20.

Self-awareness is the key to truly understanding the human condition and the nature of suffering, and it can be cultivated through mindfulness.



UBCMJ