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Guest Editorial

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WHY MINDFULNESS MATTERS IN MEDICAL EDUCATION

INTRODUCTION

Mindfulness can be described as a generic life-skill that has an endless number of applications. It is both a form of meditation and a way of living. It involves the training of present-moment attention and also the attitude with which we pay attention – one of curiosity, acceptance, openness and compassion. Historically, the 'soft' subject of mindfulness or meditation was marginalised as just a 'relaxation exercise' and would not have been seen as an integral part of medical education with its strong emphasis on learning the 'hard' biomedical sciences and producing 'battle-hardened' future medical practitioners. But for good reason that perception is changing. This article will briefly outline why mindfulness is now increasingly seen as a necessary and integral part of training the modern medical practitioner.

Mindfulness in medical education

At Monash University in Australia, mindfulness has been integrated as a part of the curriculum since 1992 (1) on a small scale, and on a larger scale since 2002, being the first medical school in the world to integrate it as core, examinable curriculum. (2) The main emphasis at Monash was in the first year of medicine - primarily for student wellbeing with secondary benefits for future clinical and communication skills. The other medical school to integrate mindfulness early was at Rochester in the United States, where it was taught later in the curriculum with the main emphasis on clinical skills and decision-making. (3)

The applications of mindfulness

The number of studies on the impact of mindfulness-based approaches has increased exponentially over recent years and without that it would not have gained wide acceptance in university curricula. Table 1 (4) categorises some of the major fields of interest. With depression overtaking heart disease as the greatest non-fatal burden of disease in developed countries, it was the studies in the early two-thousands on the role of mindfulness-based cognitive therapy (MBCT) in preventing the relapse of depression (5) that was the single biggest catalyst for the growth of interest in mindfulness more generally. In some areas, such as depression, there are now dozens of studies. (6,7) In other areas there are far fewer and often times smaller or less rigorous studies, but what is there looks promising and begs further research. (8) The studies vary from exploring the role of mindfulness for mental health and addiction, (9,10) chronic pain, (11) infertility, (12) epigenetics, (13) psychoneuroimmunology (14) and telomere research. (15) It is important for the modern doctor to be aware of evidence-based non-drug therapies for managing medical and psychological conditions such as mindfulness-based approaches. An individual doctor may or may not wish to personally deliver mindfulness-based therapies but they should as a minimum know about them and know when to refer patients to suitably trained practitioners.

Because of the wide range of applications and ever-broadening evidence-base there is much debate about whether mindfulness should be seen as a panacea. The answer to that question is probably yes and no. Yes, in that, like physical exercise, it is a basic human need and it can be adjunctive for a wide number of conditions. No, in that, like physical exercise, not everyone will be interested in it or be ready to learn about it. Mindfulness takes application and perseverance, it is sometimes uncomfortable, it can be poorly taught, and it can be inappropriately applied raising the risk of potential harm. So the quality of instruction is a vital issue.

Mindfulness for training the medical student and practitioner

It is well documented that medical students and doctors are at greater risk of stress, burnout, depression and drug and alcohol addiction than the general population. One Australian study followed every three months the levels of burnout and mental illness in interns throughout the first year of their working life. Of great concern, it found that 75 percent of interns had burnout by eight months and 73 percent had a diagnosable mental illness (mostly depression and/or anxiety) on at least one occasion. (16) This points to a major deficiency in how we train doctors to be prepared for such a demanding job, especially considering that a depressed doctor makes more than six times as many medication and prescribing problems as a non-depressed doctor. (17)

Since a landmark paper by Krasner, Epstein et al. in JAMA in 2009, (18) studies have shown that mindfulness can enhance the wellbeing of medical practitioners, at the same time as reducing burnout and increasing work engagement and empathy. (19) At Monash University, we found that for our students it is associated with significantly enhanced student mental health even during high-stress assessment periods of the semester (20), and greater self-care. (21)

Studies have shown that mindfulness can improve memory and learning in university students (22) and help them to cope with exam anxiety. (23) It also seems to improve mental flexibility and problem-solving, (24) as well as reducing clinical errors, and the cognitive biases commonly found behind diagnostic errors. (25,26) These skills have become increasingly important as the modern workplace becomes ever more complex. The negative impacts of poor doctor mental health, haste, distraction and complex multitasking increase the number of clinical errors; to the extent that it is the third most common cause of death in the United States. (27) Having vigilant and self-aware doctors is not just important for doctor wellbeing but is vital for patient safety.

Mindfulness – in the sense of more present and aware medical practitioners – is also associated with greater emotional intelligence, communication skills, rapport and more satisfied patients. (28,29) One of the common symptoms of burnout is depersonalisation and so it is important as to how mindfulness fosters greater compassion, (30) at the same time as reducing vicarious stress and carer fatigue. (31,32)

Free online mindfulness course

There is not the space here to go into the rationale for mindfulness in greater depth, but if students are interested to learn the basics of how to practice mindfulness, then this free online course developed by Monash University and housed on the UK's FutureLearn platform may be of interest. (33)

CONCLUSION

In conclusion, mindfulness is a simple generic skill that can be easily integrated into medical education and practice. In an already packed medical curricula some argue that there is not the available curriculum time to include mindfulness but, considering its wide-ranging benefits for medical students, doctors and patients, it is actually far harder to make a rational case against its inclusion in the training of the modern, job-ready medical practitioner.

Table 1: The applications of mindfulness

- Mental health: E.g. therapeutic application for depression, anxiety, panic disorder, stress, emotional regulation, addiction, sleep problems, eating disorders, psychosis, ADHD, autism, reduced burnout, greater resilience…
- Neuroscience: E.g. structural and functional changes in the brain, stimulation of neurogenesis, possible prevention of dementia and cognitive decline, down-regulating the amygdala, improved executive functioning and working memory, reduced default mental activity, improved self-monitoring and cognitive control, improved perception of sensory input…
- Clinical: E.g. therapeutic applications for pain management, symptom control, coping with chronic illness (e.g. cancer and MS), metabolic and hormonal benefits (e.g. reduced allostatic load, cortisol), facilitating lifestyle change (e.g. weight management, smoking cessation), improved immunity (e.g. improved resistance, reduced inflammation), enhanced fertility, improved genetic function and repair, slower ageing as measured by telomeres…
- Performance: E.g. sport, academic, leadership qualities, mental flexibility and problem solving, decision-making, sunk-cost bias…
- Education: E.g. improved problem-solving, executive functioning and working memory, better focus, less behavioural problems, fostering growth mindsets, resilience…
- Relationships: E.g. greater emotional intelligence and empathy, improved communication, reduced vicarious stress and carer burnout…

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