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ORIGINAL PAPER

The Art of Introducing Mindfulness into Medical and Allied Health Curricula

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Abstract

Objectives Mindfulness is now widely used therapeutically in health settings, but for a range of reasons, it is not commonly integrated into the education of health professionals. This article aims to share practical insights and lessons learned from teaching mindfulness as core curriculum to the whole cohorts of medical students at Monash University.

Methods This reflective article will provide a personal perspective drawing on many years' experience since the early 1990s of integrating mindfulness into the core medical curriculum including outlining the mindfulness-based lifestyle program delivered to the medical students. This will provide a backdrop to sharing important lessons relating to preparation, integration, delivery and review of mindfulness curriculum. A range of practical issues will be explored including making the case for it to faculty, finding the right language, giving it a context and rationale, using the most conducive teaching style, having the right tutors, carefully dealing with resistance, finding appropriate methods of assessment and the importance of review.

Results Evaluations and feedback on the program over a number of years have shown a high level of acceptance and utilisation of mindfulness-based skills by students. Since its inception, mindfulness training has now become integral in the training of many other health professional students at Monash.

Conclusions If done effectively, mindfulness can be successfully introduced and integrated into core curriculum of medical and allied health students using it as a meta-skill to support the development of student wellbeing a range of important clinical competencies.

Keywords Mindfulness · Medical education · Health professional students · Tertiary education · Curriculum

Although mindfulness is an ancient practice, it is also seen by many as being a relatively new phenomenon. There are many unresolved questions including whether mindfulness can or even should be taught to the whole student cohorts as a mandated part of university curriculum. In teaching mindfulness, it is one thing to teach self-selected groups of students who are keen and informed enough to sign up for a course of their own volition. It is quite another thing to teach mindfulness to the whole cohorts of students many of whom may be uninformed, uninterested, cynical or resistant to attending mindfulness training. Therefore, taking the whole of cohort approach tends to have lower expectations with regard to the level of mindfulness skill students will attain, and it requires more caution, experience, patience, art and skill in its delivery.

Innovations in medical education don't tend to grow from nowhere. They arise from the confluence of a variety of factors, not least of which are an innovative academic culture, years of preparing the ground at the university and a sympathetic environment of readiness and acceptance in the wider community. It also takes much patience and readiness on behalf of committed faculty members to nurture the process often over a long period of time.

To help with managing academic demands and stress, mindfulness had been an accepted and integral part of the core medical curriculum for our undergraduate medical students at Monash University since 1992. With the development of a new medical curriculum on the drawing-board in 2000, and a positive response by the faculty to the notion that student wellbeing should be a primary goal of medical

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training, the medical student mindfulness offering was significantly expanded in 2002. At this time it became a fully integrated 6-week mindfulness-based healthy lifestyle course called the Health Enhancement Program (HEP). No other similar courses were integrated into core curriculum anywhere in the world at that time although there were mindfulness programs offered as electives. Now mindfulness content is included in all the health professional and biomedical science courses offered at Monash University as well as a number of other non-health-related courses. This equates to over 5500 students receiving mindfulness training in 2020 as a part of their curriculum and another 1800 seeking out elective mindfulness training of their own volition. The aim of this article is to provide an overview of the HEP and explore key lessons learned from long experience about how mindfulness can be successfully introduced, integrated and contextualised within health professional education.

Structure of Monash Health Enhancement Program

The HEP is the oldest and best established mindfulness program at Monash and will be used as an example of in-curriculum integration. It is a mindfulness-based lifestyle program taught in the second half of the first semester of the first year medicine. The course is framed around the ESSENCE acronym (Table 1) which can be characterised as the *essence* of preventing or managing chronic illness. The HEP takes an experiential, reflective and deep learning approach in that students learn about how it applies in healthcare by first applying it to themselves. The objectives of the HEP are listed in Table 2.

The HEP has a series of nine introductory lectures covering the rationale, relevance, evidence-based and clinical importance of mind–body medicine, behaviour change strategies, mindfulness and each of the lifestyle elements in the ESSENCE model. The content from these lectures appears in the students' written exams. The lectures are supported by 6 weekly 2-h tutorials in groups of 15–16 students. The tutorial content each week includes 1 h on mindfulness and 1 h dedicated successively to each of the other elements of the ESSENCE model where students explore their own lifestyle choices and the impact they have on personal wellbeing. They also apply various behaviour change and goal-setting strategies to themselves with a view to understanding their relevance in healthcare in the prevention and management of chronic illness. The mindfulness component of the course incorporates four main aspects.

The Informal Practice of Being Mindful in Daily Life

There is little point in being mindful for 10 min during meditation and then being unmindful for the remaining 23 h and 50 min in the day. Through an inquiry into the outcome of being unmindful (i.e. distraction, disengagement and inattentiveness) in their lives, students come to their own conclusion that being unmindful has many costs like increased errors, wasted time, impaired memory, miscommunication, lack of enjoyment, worry, anxiety and the physical effects of chronically activating the stress response. When the rationale as to why mindfulness is useful becomes self-evident, students are encouraged to informally practice mindfulness by observing where their attention is as they go about their daily life, whether studying, conversing, eating, walking, resting or doing anything else. They are invited to notice and reflect on what comes with being mindful or unmindful. As discussion unfolds week by week, and as insight grows, it becomes apparent that mindfulness is more than just concentrating when studying. It includes self-awareness, noticing their internal mental state, being aware of default mental activity and noticing being on automatic pilot, the physical and emotional effects of stress and the impact of mindfulness on empathy and compassion. Thus, the students contextualise mindfulness for themselves and become aware of its value.

Brief Formal Mindfulness Meditation Practices

Students are invited to participate in mindfulness *experiments*, starting with brief guided meditation practices of 5-min duration. Between tutorials, students are encouraged to practice and reflect on their experience of mindfulness meditation beginning with 5 min twice a day. After 2 weeks, they are encouraged to increase their practice to 10 min twice daily if motivated to do so. To use a punctuation

Table 1 The seven elements of the ESSENCE model (Hassed, 2008)

Education: including being educated about ourselves, our motivations and behaviours
Stress management: covering the mindfulness and mind–body components
Spirituality: exploring where we find meaning and purpose in life
Exercise: the importance of physical activity for mental and physical health
Nutrition: food as medicine and healthy nutrition for mental and physical health
Connectedness: the importance of social support, healthy relationships and community
Environment: the healthy physical, educational and social environment

Table 2 The personal and professional development aims of the health enhancement program

The HEP aims to foster behaviours, attitudes, skills and knowledge conducive to:
Personal self-care strategies for managing stress and maintaining a healthy lifestyle
Understanding and applying mindfulness-based strategies for personal and professional life
Enhancing students' physical health
Laying the foundations for future clinical skills in stress and lifestyle management
Integrating HEP content with biomedical, psychological and social sciences
Understanding the mind–body relationship
Developing a holistic approach to healthcare
Developing peer support
Enhancing performance academically and in future clinical practice
Improving communication skills

metaphor, these practices are called *full stops*. Students are also encouraged to practice numerous *commas* throughout the day of 15–60 s to put space between the completion of one activity (e.g. studying or seeing one patient) and the commencement of another (e.g. having dinner or seeing another patient).

The "Big Four" Cognitive Practices

The cognitive practices are aimed at raising students' awareness of the mental processes underpinning states such as stress, anxiety, anger, depression and poor performance. The "big four" cognitive topics are described in Table 3. Each week, one of these four practices is introduced for inquiry in the following week. The next week, students are invited to share insights and lived experiences that shed light on these four topics.

In-Class Mindfulness Experiments and Role-Plays

Experiments are used to help students to contextualise mindfulness in daily life and integrate it with other elements of the curriculum and discover for themselves the value of being mindful. Apart from meditation, experiments include mindful communication, eating and movement. Other experiments explore some of the challenges that interfere with being mindful such as complex multitasking, dealing with distractor influence, the impact of stress on performance and interrupting the flow of complex tasks. Students also participate in a series of role-plays where, for example, they need to communicate the basic principles of mindfulness to a role-playing patient such as might arise in OSCE exams. Students are not expected to be able to deliver mindfulness as an intervention or use mindfulness to deal with complex clinical scenarios.

Support Materials

Support materials include an online student manual, a course companion text (Hassed, 2008), online readings and journal articles and downloadable guided meditation practices. Motivated students also have the option to undertake a free online mindfulness course housed on the FutureLearn platform called Mindfulness for Wellbeing and Peak Performance.

Reflective Journal

Throughout the HEP, students keep a weekly journal reflecting on their personal experiences, questions, challenges and insights of applying mindfulness to themselves. They write 250 words on each of the mindfulness and lifestyle issues for the week. Students only write what they are comfortable for their tutor to read because the journals are handed in and returned the following week with feedback and encouragement. The journal is formatively assessed and a hurdle requirement meaning that they cannot pass the semester without completing it satisfactorily. The journal does not contribute a mark towards summative assessment because that would encourage students to write *model* answers to the reflective questions rather than *authentic* ones. Students are applauded, for example, if they authentically reflect on and describe their ambivalence and difficulties in practicing

Table 3 The "big four" cognitive practices used in the HEP (Hassed, 2002)

Perception: seeing things as they are. Mindfully distinguishing between distracted imagination and present moment "reality"
Letting go (non-attachment): observing passing thoughts, feelings, sensations, events and possessions but without attachment to them
Acceptance: the open and non-resistant attitude with which we meet our internal and external experiences
Presence of mind: using the senses as a way of being in the present moment and coming out of the recreated past or imagined future

mindfulness rather than giving artificially positive responses so as to appear as model students.

Weekly Tutorial Discussion

Between tutorials, students apply mindfulness in daily life, and the following week, they discuss their experiences, challenges, questions and insights under the guidance of the tutor. Although there is a weekly structure to the tutorials, class discussion is driven by the students' interests and needs, not the tutor. Students give mindfulness context by taking generic principles and practices and applying them in ways that are meaningful to them. Common themes raised by students include mindfulness helping with study load, exam stress, relationships, performance, sleep and mental health. Privacy is respected, and students are never asked to say anything that they are not comfortable to share with their peers, but experience shows that over the weeks, the group members become increasingly open, trusting and supportive of each other.

The tutorials provide a kind of pastoral care for students, but if they identify themselves in the tutorial, journal or private conversations with the tutors as possibly having more significant academic, mental health or physical health problems, this is treated confidentially and referred to the appropriate faculty, counselling or medical services. Although the HEP is there to foster wellbeing and provide support, and the tutors are trained health professionals, it is not designed to be a therapeutic program for major mental health problems, and the tutors are not expected to mix tutoring and therapeutic roles.

Outcomes of the HEP

Encouragingly, research on the HEP found that over 90% of the medical students report personally applying the mindfulness skills in their own life (Hassed et al., 2009). This is a surprisingly high uptake considering that the program is not elective and the students are not self-selected. Although most students are inconsistent with longer meditation practice, the majority most enthusiastically take up the brief meditation practices (commas), as well as the cognitive and informal practices. Our data shows that student mental health and quality of life significantly improve after the HEP even when comparing the low-stress period of early semester with the post-course evaluation immediately prior to mid-year exams when a decline in mental health and quality of life is expected. In other studies, we have found that increased mindfulness is associated with increased study engagement (Bailey et al., 2019) and a greater likelihood that students will recommend mindfulness to patients in future medical practice (McKenzie et al., 2012). A cross-section of the student cohort across the 5 years of the course indicates that the more mindful the student, the greater their wellbeing and self-care (Slonim et al., 2015). Mindfulness principles and skills are revisited and reinforced in later years of the medical curriculum and is integrated into teaching on topics like clinical performance, communication skills and mental health.

Key Lessons for Integrating Mindfulness into Core Curriculum

This next section will focus on key lessons learned from many years' experience of integrating mindfulness into core curriculum. The lessons will be broken down into four stages; preparation, integration, delivery and review.

Preparation

Before a mindfulness program is developed and delivered, there is a significant amount of work that needs to go into preparing the soil into which the seeds of mindfulness are planted. This process of preparation can be broken down into preparing oneself, identifying the needs, making the case, dealing with resistance and building capacity.

Preparing Yourself

The prerequisite for the person developing the program and those delivering it is that they have significant personal experience in and commitment to the practice of mindfulness. Unlike much of the curriculum, a mindfulness teacher is not merely relaying information or theory — they teach by example. They need to embody it. The teacher needs deep understanding, or else, they may teach what they think is mindfulness but model the opposite of it.

Identifying the Needs

There are dangers in the teacher pushing a personal agenda, no matter how virtuous that agenda might seem, rather than serving the recognised personal, academic and future vocational needs of the students. When a teacher has a personal agenda that overrides the students' expressed needs, then they are likely to do things such as push the students where they are not ready to go, use language that is unfamiliar to them, try to create spiritual converts or forget the core objectives of their health professional training. Appreciating the actual needs of the students means leaving aside one's personal agenda and attending to the students in the room. What are their needs and interests? In the HEP, the needs mainly relate to personal (e.g. wellbeing, self-care, stress management), academic (e.g. study

load, exam stress) and professional (e.g. enhancing clinical and communication skills) development. The HEP also aims to lay the foundations for future clinical skills in fostering patient wellbeing and mental health, improving clinical performance and decision-making and reducing clinical errors. Other objectives are to help students to build their capacity for compassion, both to self and others, and to prevent vicarious stress, carer fatigue and burnout.

Making the Case to Faculty: Is There An Opposing Case?

The case for introducing mindfulness into the curriculum needs to be made convincingly to the faculty preferably by someone embedded within the faculty rather than someone outside it. If faculty members hold unconscious, unchallenged and unfounded beliefs, for example, that mindfulness is just a relaxation exercise, and relaxation equates with being unproductive and unmotivated, then there will be significant resistance to it. The case for its introduction is best underpinned by good evidence and a clearly communicated rationale spoken in plain language. In speaking to faculty members less familiar with mindfulness, some things might carry more weight than others such as concerns about poor academic progress due to poor mental health, or enhanced clinical performance, or the potential for reducing clinical errors which can cost an enormous amount to the individual and healthcare system alike. Once the case is made based on evidence and sound reasoning, then a good question to gently challenge faculty members with is, "So, what is the case against introducing it?" There is not really a good case to be made as to why fostering things like resilience, awareness, focus, compassion, self-regulation and executive functioning skills is not relevant to healthcare students. There is not much of an evidence-based case to be made that students don't need to look after their mental and physical health, to focus better on their studies, to cultivate vigilance and self-awareness or to be compassionate and attentive to their patients.

Dealing with Resistance

If a mindfulness advocate is personally attached to the goal of delivering mindfulness, then meeting resistance and cynicism tends to cause reactions like fear, anger and stress. The problem is what the advocate is attached to, not somebody else's attachments. First, it is helpful to let go of the agenda and then listen attentively to objections. Although meeting resistance is often experienced as frustrating, it needs to be met, in as much as one is able, with care, attention and respect. There will always be seeds of truth in what a naysayer says. Something may need to be acknowledged, reframed or better communicated. For example, the evidence may have been overstated, or the approach proposed may not be addressing the actual needs. If resistance can be met in a respectful way and somebody's concerns are heard and addressed, then one generally winds up with a collegial relationship rather than an entrenched opponent. Devil's advocates can be tremendously helpful in alerting oneself to blind spots that may not have been noticed or helping one to be better at dealing with potential resistance and questions from students.

One important factor in not galvanising student resistance is to constantly remember that although knowledge within core curriculum may be mandated and examined, the student is always in control of whether or not they personally practice mindfulness. Mindfulness-based practices are only ever offered and never imposed.

Building Capacity

Teaching mindfulness is not the kind of subject where a course convenor can just put an instructor's manual into a tutor's hands and expect them to deliver it effectively or authentically. If a program is to be effectively delivered, then it needs well-trained tutors with significant personal and professional experience in mindfulness and teaching it. It is preferable that tutors are healthcare professionals themselves because, first, it carries a lot more respect with the students and, second, tutors will be able to contextualise mindfulness much more effectively within the healthcare environment.

Tutors need to be trained, mentored and very familiar with the curriculum to be delivered. They might have done a quality mindfulness course like MBSR, but that, by itself, may not cover much of what is to be delivered within the curriculum.

Integration

A significant challenge is how to integrate mindfulness and make it relevant. Many students find mindfulness philosophically challenging and not what they expected from a traditional medical course, so care is taken to deliver the program in such a way that it is integral to clinical medicine rather than peripheral to it. Strategies to enhance this are, first, to provide an evidence-based lecture series so that students clearly understand the evidence underpinning what they are learning (including important gaps in the evidence) as well as the clinical relevance. Second, integrate content with problem-based learning (PBL) cases to further demonstrate its clinical applications. Third, an immediate concern for the students is their academic progress and the study load they are experiencing. Therefore, help students appreciate how mindfulness can help them to focus better and increase study engagement. Fourth, in their future context of being a health professional, demonstrate how mindfulness can reduce cognitive load during a very full working day, underpin effective

decision-making, reduce cognitive bias, enhance communication and prevent errors.

Assessment

Student learning is largely assessment-driven. If some part of the curriculum is not summatively assessed, then they won't think it's important. Make the content assessable with multiple choice and short answer questions on written exams to test the knowledge-base, and clinically focused stations in OSCE exams to test understanding, communication and application. Summative assessment is therefore integrated with other components of the curriculum. In the HEP, formative (hurdle requirement) assessment is related to satisfactorily completing the journal.

The Four F's

The four F's refers to "be flexible with the form, but faithful to the philosophy".

Although the gold-standard and best-known formulations of mindfulness courses are MBSR and MBCT, their format, depth and focus may not suit every context, especially when teaching the whole cohorts mostly made up of non-self-selected students. Problems arise, for example, when mindfulness teachers are inflexible with the form, as if the course must be 8 weeks, include yoga and walking meditation, involve eating a raisin on week one and mandate 30–40 min of meditation practice daily. There are an infinite number of ways of being mindful and an infinite number of contexts in which it can be applied, and so there are infinite ways of teaching it. The format and focus need to fit the students, the available curriculum time and the context, so the person designing the course must be awake to the needs and constraints and be creative in addressing them.

The other main problem is when the mindfulness program and tutors are unfaithful to the philosophy of what is being taught either through lack of discipline or lack of understanding. Consequently, what is being taught may bear little resemblance to what others might recognise as mindfulness. The biggest risk of this happening is when those designing or teaching a mindfulness course are not well grounded in it themselves. So, the course needs to be faithful to the essential philosophy of mindfulness — paying attention, present moment, non-attachment, acceptance, non-judgmental, compassion etc.

Shape Content and Delivery to the Available Time and Opportunity

Part of being flexible means shaping the content and delivery to fit with whatever curriculum time and delivery mode is available. If that means a 1-h lecture to teach mindfulness, then do what can be done such as raise awareness, point to the evidence, establish a rationale, provide some practical tips, offer a taste of mindfulness practice, and hopefully inspire students to learn more. The bar will be set reasonably low in terms of what you can expect the students to be able to know and do when they leave the lecture theatre, but hopefully if further resources and elective training is available, then some may take that up. If there is an opportunity to provide a lecture plus a small group tutorial, then there is more scope to give a practical taste of mindfulness meditation and deal with further questions about how to apply it. The bar is raised higher, but not much. If there is the opportunity to run a full 6-week program or longer, replete with lectures, tutorials, readings, resources etc., then the expectations of what the students will know and do at the end of it will be higher. The point is to do the best with the time provided and not have unreasonable expectations about what can be achieved with limited time. To think that a 1-h presentation or workshop on mindfulness is going to be enough for the students to use it therapeutically is unreasonable and unsafe.

Integrate Mindfulness with the Rest of the Curriculum

There are many potential points of overlap between mindfulness and other curriculum content like clinical skills. This needs to be made obvious so that the mindfulness content is not seen by students and faculty as being a topic on the periphery of other important parts of the curriculum. How this is done will be different depending on the year level. Early in the course links between mindfulness and biomedical, social and psychological sciences can be made obvious by integrating sciences such as mind–body medicine, psychoneuroimmunology and neuroscience. Communication skills fit naturally with mindfulness and the development of listening skills, emotional intelligence and compassion. Later in the course mindfulness can be linked to the development of better focus while performing surgical and medical procedures, increasing vigilance to reduce clinical errors, and supporting clinical reasoning and decision-making. It can also be linked therapeutically with clinical applications like mental health, managing chronic pain, addiction or helping patients to facilitate lifestyle and behaviour change in the prevention or management of chronic illnesses. Of course, for students to be able to use it therapeutically rather than merely recommend it in these complex clinical situations would need significantly more training.

It helps if mindfulness is vertically integrated and delivered across various years of the course rather than at one time-point only. If delivered across different year levels, it is

important to have the whole offering in view as each year's content is being developed and delivered so that knowledge and skills are reinforced in a coordinated and stepwise way rather than merely repeating what went before.

Tutor Selection and Training

Tutors are best selected based on their personal commitment to practicing mindfulness, their professional experience in using it clinically and their small group teaching skills. For the HEP, even experienced mindfulness practitioners are mentored and observe an experienced tutor running the program before they are allowed to be HEP tutors the following year. They see how the course is run, the language used, the Socratic teaching style, the experiments in operation and the way it is contextualised for the students. This is complemented by a 3-h tutor briefing before the commencement of the HEP to orient tutors to the course structure and delivery, and there are weekly tutor debriefing sessions after the tutorials.

Delivery

How mindfulness teaching is delivered can have a huge effect on whether or not it is positively received by the students. Health professional students are training to become doctors or allied health professionals, so they probably didn't realise they were signing up for mindfulness when they started their university degree. Unless it is quickly seen as being relevant it will be rejected by the majority of students.

Start with the Science

It is helpful to start with one or more evidence-based lectures before the experiential, small group tutorials begin. The science, if engagingly presented, helps to minimise unthinking resistance to mindfulness and generates respect for the topic. If the students are not acquainted with the science and applications, they will tend to marginalise mindfulness in their minds and think of it as a soft part of the curriculum. But this is not the real learning in mindfulness. To use a metaphor, theory without practice is like attending a lecture on hydration without drinking the water — it is not satisfying or transformative. The lectures are important as they are the way of metaphorically getting the horse to the water, but the tutorials are where the students drink the water and begin to truly understand and benefit from it.

Language

The language medical students expect and respect is generally scientific, practical and pragmatic. The mindfulness teacher needs to be able to translate the languages of mindfulness, science and philosophy into the language of mindfulness practice. The language needs to be simple, direct and avoid terms from spiritual traditions that will likely be foreign to the students, culturally inappropriate and treated with suspicion. Humour, clinical anecdotes and metaphors also help enormously. They keep students engaged and help to communicate the message far more quickly and effectively than drawn-out technical explanations generally do.

Personal Choice in Terms of Practicing Mindfulness

An important question is whether faculty can or should compel students to learn about mindfulness. Should it be compulsory? The answer is yes and no.

Yes, it can be compulsory in that the knowledgebase underpinning mindfulness can be as non-negotiable and examinable a part of the curriculum as any other part, where students are expected to know the principles of how it is practiced, the science and evidence surrounding it and the clinical applications for its safe and appropriate use. So, knowledge about mindfulness can be compulsory.

No, mindfulness can't be made compulsory in the sense that students can't and shouldn't be compelled to practice what they don't wish to practice. They can be provided with the rationale for its use the evidence supporting it, but the personal application remains entirely the choice of individual students. They must make their own informed and free decisions about what they do and don't apply in their own life including whether or not to participate in the in-tutorial guided practices. Students may be resistant to practicing it for a range of reasons including mental health issues, disinterest or previous less-than-optimal experiences. Some may have a philosophical or spiritual objection to mindfulness, although that, in our experience, has been very rare considering the secular, applied and evidence-based approach taken to teaching it.

In our experience, it is rare for students not to participate in the in-tutorial guided practices, and over 90% report using mindfulness practices on a regular basis in their personal life outside of tutorial time. Although personal experience is the only real way to achieve deep learning, the practice of mindfulness, while encouraged, is not coerced. The aim is to offer mindfulness and serve the students' personal and professional needs and interests. If students understand and respect it, then they will apply it in ways that are meaningful and relevant to them. If they choose not to practice it in their own lives, then that is their choice, and it must be respected. Trying to force or impose mindfulness on someone who is unwilling cannot only galvanise resistance but may also increase the potential for adverse events.

Beginning the Process: What Is the Cost of Being Unmindful?

One of the biggest challenges is engaging student interest or convincing them that it is relevant and useful. Trying to forcefully convince students of its usefulness can result in students digging in their heels and entrenching resistance. Much better is to help students to convince themselves. For example, at the beginning of the first tutorial, put a series of questions to them along the lines of:

> "Have you ever noticed while studying that you are not taking in what you are reading? … Have you ever noticed that someone can be speaking to you (like a lecturer, friend or patient) and you realise that you haven't hear a word of what they have been saying? … Have you ever noticed yourself lost in worries about the future? … Do you unconsciously have conversations in your head with people who aren't even there? … Have you ever driven from point A to point B and hardly remembered any of the journey? … Well, these are examples of being unmindful and by that is meant distracted, inattentive and disengaged. At such times, we are on automatic pilot with the body doing one thing but the mind distracted in its own world, oftentimes in an imaginary future or reliving the past. The question is, what is the cost of being unmindful in your life, not hypothetically but practically?"

Seek the students' responses as you go through the questions. Then let the students give you a list of the costs of being unmindful such as wasted time, memory impairment, not learning, not respecting or empathising with someone, increased errors and accidents, lack of enjoyment and, importantly, stress and poor mental health by unconsciously and habitually wandering off into worry, rumination and negative self-talk. Write the list on the board. Once the students have given a decent list, then ask them another series of questions:

> "So, looking at that list, that's the cost of being unmindful. Do you want more of this in your life? … If *unmindfulness* was an investment scheme, would you consciously and intentionally invest your precious time, energy and resources in something where that was the return on your investment? … No? If we wouldn't do it consciously and intentionally, then perhaps we do we do it unconsciously and habitually? … If so, then perhaps investing a little time, energy and resources in being more mindful might have the opposite effect? … There is just an outside chance that it might save precious time, improve memory, enhance learning, increase connection with others, reduce errors and accidents, enhance enjoyment, reduce stress and improve mental health. Would you like a little more of that in your life? … Is it possible that practicing being more mindful would be a useful investment of your precious time, energy and resources? If so, then how do we train ourselves to notice when we are not mindful and make a conscious choice about where we would like our attention to be? Would you like to learn a little about that? … Yes? Then let's explore that now? …"

The point is to ask the questions and allow the students to make the case against unmindfulness and the case for mindfulness. What happens next is that the tutor provides the students with a remedy for the problem that they have identified and acknowledged. The inquiry has, as it were, gotten the students to the water, and now it is time to start drinking.

Teaching Style and the Educative Process

When teaching mindfulness to non-self-selected students, the teaching style especially matters. The most important aspect is fostering questions, inquiry and curiosity otherwise known as the Socratic method or dialectic approach. This approach underpins any truly educative process. The English word *education* comes from a Latin word *educare* meaning "to draw out" or "to lead out". It implies that true education is not a process of indoctrinating with knowledge, but rather one of eliciting the knowledge from the student. The word *knowledge* in this context is synonymous with wisdom, not knowledge as mere information. Information can be poured into the student, but wisdom can only ever be drawn out. As soon as the process moves from the lecture format of giving the students information about mindfulness to the practical experience of it, the teaching style must change with it from the didactic to the dialectic approach.

True mindfulness-based education therefore works on the assumption that the student already has wisdom and insight latent within themselves although they may not realise it. The teacher's role therefore is to draw out that wisdom with a facilitated inquiry, modelling curiosity and non-judgmentality in the process. Students are not expected to accept or reject mindfulness principles or practices, but they are encouraged to investigate and test them in the light of their own direct experience.

Implicit in this educative process is offering, not pushing, the practices and then inquiring into the students' experience whether they perceive it to be successful or not. What did they notice? What happened to the body, mind and attention when they practiced? What was their reaction or attitude to what they noticed? What was the effect of that reaction or attitude? This includes mindfully and non-judgmentally inquiring into resistance or ambivalence if that was what arose. In this way, students learn about how mindfulness

works and the barriers to being mindful. There are no mistakes or getting it wrong, only experiences from which students can learn. In that sense, the so-called unsuccessful attempts to practice mindfulness are just as valuable as the so-called successful ones.

The tutorial group, if well facilitated, works as a collective inquiry. If students report back noticing how distractible the mind is when studying, during tutorials, driving, eating or being with their friends, then that is progress in that they are now noticing what mostly goes on in the background unnoticed. The tutor invites examples of mindful and unmindful experiences from the students' lives, and then, if the students are happy to, the tutor inquires more deeply into them. For example, the tutor may ask, "Oh, so you have become aware of how distractible the mind is. What has been the benefit of that?" The student may offer responses such as, "It has allowed me to bring my attention back on track more readily when it wanders. That has saved me a lot of time and I am not getting caught in worry nearly so often so I'm feeling more productive and relaxed at the same time". Equally, the tutor may ask of another student who offers their experience, "So, you also became more aware of how distractible the mind is but you got annoyed about it. What was the effect of that reaction to the state of mind that you noticed?" In response, this student might report things such as, "It made me frustrated and I gave up. I can't do it right". The tutor may come back with, "Did that critical attitude to the state of mind you noticed solve the problem of mind wandering or did it accentuate it and make it more intrusive?" "It made it worse". "Well, that may be a very valuable insight for you and the whole group, first, that the mind often wanders whether we want it to or not and, second, the attitude of judging or criticising it draws more attention to it and accentuates it. Who knows, that may also have implications for patients working mindfully with the things they find uncomfortable such as anxiety, depression or physical pain. I wonder what would happen if you cultivated the ability to be a little gentler with yourself in the likely event that you notice this kind of thing arising again. Like training a puppy, getting angry with it can be counterproductive, so we use a consistent but gentle, patient and loving approach to training our minds".

When spoken into the room, these insights become available to the whole group. It is what the students say, not the tutor, that really matters. In hearing their peers speak, ambivalent students are increasingly convinced of the value of mindfulness. If tutors meet resistance with resistance, frustration, criticism or passionate appeals to believe in mindfulness, this will not end well. The tutor, especially when working with resistance and scepticism, must practice their own acceptance and openness. Welcome it. Work with, not against it. Explore the questions, challenges and issues raised. Be interested. See if the group can answer their questions based on their own direct experience and insights. If the answer is not forthcoming, then be comfortable with leaving questions open to further inquiry. Commonly, students will give the answers sooner or later, and when they do, they will have much more ownership over it because it is their own discovery and not second-hand knowledge from the tutor.

A distinction should be made between healthy and unhealthy scepticism however. Healthy scepticism, although it may be outwardly confronting for the tutor, tends to have a real and useful question at its heart. Such inquiries nearly always bear fruit because the student is willing to explore the topic and test assumptions. The unhealthy scepticism of a closed mind very rarely bears fruit and can waste a lot of time and energy for the tutor and other students. Questions arising from unhealthy scepticism tend to be negative, cynical, derisory and uninformed assertions disguised with a question mark. If recognised, generally the best course is to gently and respectfully decline the temptation to get embroiled in unproductive debates.

Contextualisation and Pragmatism

Connecting generic mindfulness skills and practices with the students' future vocation is vital. What does it mean to be a mindful health professional? It means things like being able to communicate more effectively and empathically, cultivating compassion, coping with workload, making fewer errors and not falling into pitfalls like complex multitasking. Mindfulness comes alive when clinical and lived examples are provided by the lecturer or tutor. How often does the mind wander while the patient is giving their history? What was the attention on when doing your first lumbar puncture? How do you reduce the cognitive load during busy and long hospital shifts? How can you centre yourself when stepping up to a medical emergency? Students relate very well to the pragmatic, applied aspects of mindfulness especially if it can be contextualised, the rationale can be explained in a down-to-earth way, and clinicians can share both mindful and unmindful lived examples.

Secularising Mindfulness

While program design and delivery need to be as faithful to the principles of mindfulness as possible, it also needs to be delivered in a simple, secular language. The more dressed in philosophical or spiritual language and agendas the program is, the more it seems removed from most of the students' experience and needs, and the more likely the students are to reject it as being irrelevant or culturally inappropriate. It will either seem foreign to them or like someone's else's religious beliefs are being imposed on them.

This has never arisen as a significant problem at Monash, although occasionally interested students ask questions about the origins of mindfulness. When asked, a reply is given along the lines that the principles of mindfulness (contemplative practices aimed at cultivating awareness, focus, presence, non-attachment, acceptance…) have been practiced in one form or another in all the world's great wisdom traditions for millennia (Hassed, in press), although the modern renaissance of mindfulness has been most significantly contributed to by practitioners and researchers who have been inspired and informed by the Buddhist tradition. In that sense, mindfulness is universal but is going through a major revival because of modern challenges of distraction, stress, poor mental health, social isolation and lack of meaning.

A Muslim student once asked whether mindfulness fitted in with his religious practices like prayer. It was asked if prayer was important to him. He said it was very important. He was asked if he knew his prayers so well that he could recite them in his sleep. He said yes; he knew them very well. He was then asked if, while praying, his mind ever wandered to more worldly matters like study, social life or lunch. He paused and said, regrettably, it did. So, it was suggested that maybe mindfulness would be a very good practice for him so as to give his whole attention and intention to something so valuable to him as prayer obviously was. He left feeling motivated to practice mindfulness briefly before prayer.

The legitimate caution of mindfulness becoming dislocated from its philosophical and ethical roots needs to be addressed. If mindfulness is seen in its most narrow sense — i.e. as just an exercise in focusing attention — then that criticism is most justified, and mindfulness could easily be used in both wise and unwise ways. For example, a very focused and competent surgeon could still lack compassion or recommend expensive operations their patients didn't really need in order to make money. If, however, what it means to be truly mindful is understood in a broader sense by cultivating things like conscious decision-making, values, compassion and prosociality, then it is far less of a problem if it presented in a secular way. Hence, a truly mindful surgeon is not merely focused and skilful while operating, they are also connected and compassionate to their patients as well as mindful of what motivates their clinical recommendations. The deeper value of mindfulness and the wisdom traditions which embody it are oftentimes more implicit than explicit.

Experiments

One way of contextualising mindfulness and making it interesting and enjoyable for students is to give them mindfulness-based experiments. The language and attitude of experimentation cultivates curiosity and increases engagement and inquiry. Then students make discoveries by direct observation rather than being expected to accept the words and assurances of their tutor. The range of mindfulness experiments was previously mentioned, and although there is not enough space in this article to describe them in detail, their value is amplified by giving them a medical context.

Review

The final important stage is to review how the program has gone and if there is available budget and time, to gather qualitative and quantitative data on the outcomes. This helps hone the design, delivery and appropriateness of future programs. Feedback — formal and informal — from students, tutors and faculty, are all important and will give a 360 view informing whether changes are needed to things such as language and contextualisation. Such evaluation is vital for assuaging the concerns of sceptical faculties and students.

In conclusion, with careful attention given to the content, delivery and contextualisation of in-curriculum mindfulness programs, mindfulness-based skills can be made relevant to any vocational discipline, particularly medical and allied health professional students. To do this well, it helps to be flexible with the form but faithful to the philosophy.

Declarations

Conflict of Interest The author declares no competing interests.

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