

Mindfulness and Professionalism in Dentistry

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Abstract: To improve the effectiveness of teaching professionalism, the authors propose introducing mindfulness practice into the dental curriculum. The qualities cultivated through mindfulness meditation practice closely resemble the global attitudes of professionalism. Professionalism and mindfulness are broad overlapping constructs with a common prosocial aim: letting go of selfish, short-sighted rewards and promoting the long-term common good. Both constructs also aim for the highest quality of life for practitioners and patients alike. Based on a selective review of the medical literature, we suggest that mindfulness practice should help improve attentiveness, self-awareness, acceptance, wisdom, and self-care in dentistry. We briefly review the role of mindfulness in higher education, as well as current attempts at Dalhousie University to integrate mindfulness into the dental and dental hygiene curricula.

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Teaching professionalism is arguably best accomplished by blending cognitive and experiential approaches.¹ Explicitly teaching the theoretical concepts of professionalism by using definitions or lists of traits is relatively straightforward. However, embedding this knowledge in authentic activity in a way that fosters commitment to a common set of professional values such as altruism, compassion, and community service remains a complex challenge.²⁻¹⁵ Current professionalism and ethics curricula appear to have minimal influence on the behavior of dental students and graduates.¹⁶ Educators therefore need to address the “enormous [perceived] disconnect . . . between understanding the principles of ethics at an intellectual level and applying them in daily life” (p. 417).¹⁶

Incorporating mindfulness practice is a novel way of improving the teaching of professionalism and has been explored in medicine and nursing.¹⁷⁻²⁷ The PubMed and PsycINFO databases (accessed on February 6, 2008) contained 180 and 521 (respectively) papers with “mindfulness” in the title, but not one of those involved dentistry. A recently published paper on rapid relaxation (RR)²⁸ briefly discussed the connection between meditation and the RR technique, but the construct of mindfulness was not mentioned. An Internet search located one preliminary report on mindfulness training for dental and medical students

(discussed in detail below).²⁹ The minimal mention of mindfulness in the dental compared to the medical and nursing literatures is surprising, given the striking professionalism-related overlap between the core competencies of dentistry and the learning objectives of medicine and nursing.³⁰

The purpose of this article is to explore the potential role for mindfulness in dental education, specifically as it relates to professionalism.

Mindlessness, Millennials, and Professionalism

It may be taken for granted that health care professionals should “pay attention” in both clinical and learning situations. However, studies on attentiveness show that people are only briefly and unpredictably attentive.^{31,32} Attention habitually diverts to unrelated thoughts and feelings, leaving any task at hand to be managed “on autopilot.”³¹ These studies suggest that mindlessness (“mind wandering,” “zoning out,” “task-unrelated thought”) is “one of the most ubiquitous and pervasive of all cognitive phenomena” and that it often occurs unintentionally, without awareness, occupies a substantial proportion of our day, and leads to failures in task performance.³¹

Compounding this generalized attention-deficit problem is, according to Mangold's literature review, a propensity among millennial students for multi-tasking and a preference for technology-intensive interactive learning.³³ This unique combination of attributes may make it particularly challenging for dental students to be attentive in traditional lectures or during one-on-one "coaching and feedback" sessions in labs and clinics.

Despite these challenges, we suggest that attentiveness in lectures, seminars, or one-on-one conversations with instructors is a professional obligation. Just as health care professionals and patients form therapeutic alliances to optimize the outcome of clinical encounters, students and instructors should similarly form pedagogic alliances to optimize learning encounters. Inattentiveness disrupts students' encounters with both patients and faculty members, potentially prompting an adversarial relationship instead of a productive alliance. When dental students fail to optimize professional learning opportunities, they are in effect failing their future patients. This makes inattentiveness, in these contexts, a form of unprofessional behavior. If inattentiveness is indeed a generalized though underrecognized problem, are we not as dental educators obliged to try to correct it? It was in fact the senior author's (JGL) repeated observation of students' lack of attentiveness that initially sparked our interest in introducing mindfulness into the Dalhousie University dental school's curriculum. As Sachs Hills has written, "Active listening requires not only that we pay attention to the patient who is talking to us or to the lecturer at the podium, but also that we understand and think about the information we receive. Listening must be active to be effective, and being an active listener is just as important in the communication process as being a good speaker."³⁴

History of Mindfulness

Mindfulness, in the context of health care, is operationally defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment."³⁵ Various forms of meditation and contemplative prayer are practiced in Hinduism, Buddhism, Judaism, Christianity, and Islam. In the West, the practices currently attracting the most interest—meditation and yoga—have traditionally been associated with Buddhism and Hinduism.

That said, these practices are increasingly separated from religious contexts and are being used for secular health and quality of life-enhancing purposes.

Mindfulness can be cultivated partially through understanding its principles,^{36,37} but mostly experientially, by practicing mindfulness meditation.^{36,38,39} From our perspective, both the following method and associated experiences are generic to this form of meditation. In mindfulness meditation, one first learns "concentration meditation." This involves sitting still, in a balanced upright position, learning to focus attention on a single object such as the feel of one's own breath. Much of the work at this point entails repeatedly recognizing but gently and persistently letting go of distractions: words ("self-talk"), worries, plans, daydreams, discomforts, etc. As distractions that tend to pull one away from the present moment keep popping up, the practice involves patiently and nonjudgmentally returning attention to the feel of the breath, which is always available in the present moment. As previously mentioned, during this early phase, the beginning meditator may be surprised and humbled to discover that his or her mind is so undisciplined, unable to remain attentive to one simple task for more than a few seconds. With practice, it is our experience that one develops patience, decreases (harsh) self-judgment, increases humility, increases empathy for one's own as well as others' mindlessness, and also gradually improves one's ability to maintain focused attention. While thoughts continue to arise, they may become less frequent, and one becomes progressively less identified with their content and may notice them arise and dissipate, while remaining calmly focused on the task at hand. With that, mindfulness meditation practice ("open awareness") can begin. The focus of attention is opened up to all thoughts, sensations, and emotions, again without judgment or reaction. These are allowed to come and go, without further engaging them. If judgment or reaction does arise, this too is observed and allowed to pass without additional judgment or reaction. All the while, one remains sitting still, becoming increasingly aware of the transient nature of phenomena. Through this formal process of directly observing the workings of one's own mind (self-reflection or metacognition⁴⁰), one is learning to intentionally cultivate awareness—the ability to remain attentive, moment to moment, to internal and external stimuli, with acceptance, that is, with decreasing emotional, intellectual, and physical reactivity. With continued training, meditators become increasingly able to embody the benefits of practice: alert, non-self-centered, appropriate, prosocial behav-

ior in daily life. One can do mindfulness meditation entirely on one's own, but practicing periodically with a group, ideally with guidance from a trained experienced teacher, is generally considered to be more beneficial.^{36,39}

Scientific interest in mindfulness has been “increasing exponentially over the past twenty years,”⁷⁴¹ resulting in major literature reviews and textbooks.⁴²⁻⁵¹ The use of mindfulness meditation in medicine was popularized by Kabat-Zinn, who founded the mindfulness-based stress reduction (MBSR) program at the University of Massachusetts Medical School in 1979. MBSR is an educational group intervention employing several mindfulness practices (sitting and walking meditation, yoga, etc.).³⁸

Research shows that mindfulness can be cultivated by such practices.⁵²⁻⁵⁵ Improved mindfulness has been shown to reduce suffering and improve general health and wellness among patients with chronic pain and various stress-related disorders.^{38,56} In addition to MBSR, mindfulness has been tailored to address a range of clinical problems, and shows psychological and physiological benefits in these new formats.^{41,50,53,57-62} The subjects in these studies were mainly patients with medical and psychiatric conditions; however, medical and nursing students, as well as clinicians, participated with proven benefit.^{17,20,23,63}

Meditation has also become established in North American popular culture. *Time* magazine's (August 4, 2003, U.S. edition) front cover displayed a photograph of a young woman sitting in meditation, with the headline “The science of meditation,” subtitled “New age mumbo jumbo? Not for millions of Americans who meditate for health and well-being. Here's how it works.” The popular and influential Oprah Winfrey Show recently (February 5, 2008) featured cardiac surgeon Dr. Mehmet Oz recommending meditation as one of six “anti-aging secrets to living longer.” The American Cancer Society advises cancer patients to meditate to improve their quality of life.⁶⁴

Shared Qualities of Professionalism and Mindfulness

Essential qualities of professionalism, such as self-awareness, acceptance, and wisdom, overlap with those cultivated through mindfulness practice.

Self-Awareness

Self-awareness, self-reflection, self-monitoring, self-evaluation, metacognition, and introspection are closely related “necessary prerequisites for ongoing professional development and maintenance.”⁶⁵ Schön⁶⁶ proposed three types of self-reflection: 1) “knowing-in-action”—the *unreflective* capacity for performing the majority of routine tasks; 2) “reflection-in-action”—thinking about what one is doing *while* doing it, engaged by and considered critical in “situations of uncertainty, uniqueness, and conflict”; and 3) “reflection-on-action”—reviewing and thus learning from past experience. From a mindfulness perspective, reflection-in-action is remarkably similar to the moment-to-moment awareness aspect of mindfulness.²⁷ On the other hand, knowing-in-action represents a lower level of awareness, which from the perspective of mindfulness is suboptimal for both “routine” clinical practice and life outside of work. Recent reviews of the medical literature on reflection⁶⁷⁻⁶⁹ agreed with Schön's classification and the central role of reflection in ensuring professional competence. Though these papers did not explicitly mention the concept of mindfulness, Eva and Regehr⁶⁷ equate “reflection-in-practice” with “awareness, in the moment”⁶⁹ and consider it critically important to safe, effective day-to-day clinical performance. Mann et al. subtly suggested a potential role for mindfulness training in stating: “professionals reflect, albeit in different ways, and to different degrees,” and “reflection may be a strategy, a ‘habit of mind’^{19,70} that can serve certain practitioners well, in certain situations.”⁶⁸ Like self-assessment,⁶⁷ the multifaceted construct of mindfulness is challenging to operationalize;⁷¹ however, we propose that mindfulness is so directly relevant to reflection and other aspects of professionalism²⁷ that it deserves careful evaluation.

A study showed that awareness of one's own personality traits, and their effect on clinical skills, enables one to concentrate on improving these clinical skills.⁷² Improved self-awareness is also perceived by educators to help students and practitioners shed light on their own belief systems (personal perspective and cultural influences), minimize bias in making clinical decisions, and reduce countertransference reactions in dealing with patients who have diverse beliefs, values, and preferences, thus enhancing cultural competence.⁷³⁻⁷⁵ A report on a study of reflection on professionalism observed that reflection “transforms experience into understanding,

promoting higher levels of learning.⁷⁶ A review of the research on levels of attentiveness showed, as expected, that reacting mindlessly “leads to failures in task performance.”³¹ A qualitative study on the results of a faculty development program found that self-awareness aids effective patient care,⁷⁷ that it should theoretically prevent errors in clinical practice,^{78,79} help maintain professional standards,⁸⁰ and help prevent “ethical drift”⁸¹ and was proven to improve clinical teaching.⁷⁷

The benefits of self-awareness apply as much to dentistry as medicine, yet surprisingly, a search of the dental education literature uncovered only one paper on this topic; in it, Wilson and Ayers addressed cultivating self-awareness using significant event analysis.⁶⁵ In medicine, an array of methods is used to teach self-awareness: Balint groups, journaling, literature and poetry discussion groups, and discussions of meaningful events (significant event analysis).^{74,77} Balint groups consist of four to ten physicians who meet regularly to “debrief”—discussing patient encounters, focusing on the feelings that arose, in order to better understand and improve the physician-patient relationship.⁸² Mindfulness training for medical, nursing, and psychology students has been shown to be effective in promoting self-awareness and other beneficial mindfulness-related qualities.^{17,23,63}

Teaching medical students self-awareness, personal growth, and well-being was put forth as a “progressive effort to convey the modern healing sciences in the body and person of an equally modern, self-aware, and compassionate healer.”⁷⁴ Formal training in self-awareness has been recommended to potentially enhance evidence-based decision making, patient-centered care, communication, cultural competency, team-building, professionalism, personal development, and self-care.^{25,26,74,75,83-87} In the words of Sir William Osler, “Let us emancipate the student, and give him time and opportunity for the cultivation of his mind, so that in his pupilage he shall not be a puppet in the hands of others, but rather a self-relying and reflecting being.”⁷⁵

Given such emphasis in professionalism, it is fortunate that the first key quality derived from mindfulness training is also increased awareness. Mindfulness training generally starts with awareness of one’s self—realizing that one’s own attention constantly drifts. This revelation may increase motivation to train one’s mind to repeatedly return attention to the task at hand, whether lecture, reading material, or patient. Attentiveness is obviously critical for educational activities as well as for patient

care,⁶⁷ yet from the perspective of mindfulness it is actually necessary to train in mindfulness to vividly experience³⁸ our tendency to be inattentive.³¹

Acceptance

Acceptance is central to professionalism and is the second key quality of mindfulness. In the context of mindfulness, acceptance is not synonymous with passivity or resignation; rather, it refers to being fully present without being preoccupied with self-ish concerns.⁶⁰ Clinicians cannot be helpful and available to patients (i.e., altruistic) when they are self-absorbed, preoccupied, and distracted. Clinicians and educators alike can thus benefit from cultivating acceptance. According to Carl Rogers, an effective teacher “demonstrates acceptance, cares [about] and respects the learner, is emotionally congruent and genuine, and actively listens with empathic understanding.”⁷⁷ Mindfulness meditation in group settings may enhance the above-mentioned qualities of effective teachers, and concurrently fosters the sense of belonging to an accepting, safe, trustworthy community. The need to create such safe environments, in which experiential learning in professionalism can be fostered, is frequently emphasized in medical education.^{1,7,17,75,77,81,88-93} Within these safe havens, students’ characters may be strengthened to withstand the cynicism⁹⁴⁻⁹⁶ of the hidden curriculum.^{9,97} Because our millennial students are not typically characterized as introspective, they might find self-reflection and self-assessment challenging.⁹⁸ On the other hand, mindfulness meditation may be particularly beneficial for them because the practice exposes the common human need for quiet introspection, and at the same time cultivates nonjudgmental acceptance of our distractedness.

Dentists and physicians tend to be characterized as perfectionists.⁹⁹ Research shows that perfectionists have a “contingent sense of self-worth” (low levels of unconditional self-acceptance) and that this is associated with depression, anxiety, low self-esteem, unhappiness, and low levels of life satisfaction.¹⁰⁰ Those who have no inherent, unearned sense of self-worth tend to work very hard in an (often futile) attempt to meet unreasonably high internal standards and to validate their success not by an inner sense of satisfaction but by (external) measurable or concrete results, of which others might approve (external validation).¹⁰¹

Lundh proposed that self-awareness combined with acceptance is a critical modifier of perfectionism: “To the extent that a person both (a) strives for

perfection, and (b) accepts his/her failure to attain perfection, this person may be said to show a positive self-oriented perfectionism. To the extent that the person (a) strives for perfection, and (b) is unable to accept his/her failures to attain perfection, on the other hand, that person demonstrates a negative self-oriented perfectionism.¹⁰² Ideally, health care professionals should have high standards, striving for perfection but with a healthy, adaptive, and accepting attitude, i.e., exhibit “positive perfectionism.” Positive perfectionists score high on dimensions of perfectionism labeled “personal standards” and “organization”; however, they score low on “concern over mistakes” and “doubts about action.”¹⁰² Perhaps moderate (rather than low or high) scores on these latter two dimensions would be preferable balanced attributes for clinicians. Mindfulness training is therefore theoretically ideal for dentists and physicians because key aspects of this training involve learning to nonjudgmentally accept whatever arises in moment-to-moment awareness and cultivating self-acceptance without directly confronting perfectionist beliefs and demands.^{25,102}

Wisdom

Wisdom is another important aspect of professionalism and the third key quality of mindfulness. Many definitions exist for the complex construct of wisdom.¹⁰³ From the mindfulness perspective, wisdom can be defined as the ability to see life as it really is (unselfishly, nonjudgmentally), instead of how one wants it to be. This profoundly clear perspective is considered necessary for compassionate behavior.¹⁰⁴ Long-term success in dental practice is said to be dependent upon acquiring practical wisdom, yet the concept of “wisdom” is rarely discussed, let alone taught in dental schools.¹³ Concepts such as wisdom, professionalism, and mindfulness pose difficulties for researchers, partially because they are too broad and multifaceted to be conceptualized in “explicitly constrained ways.”⁶⁹ Nevertheless, it has been suggested that wisdom-based concepts are gradually regaining serious consideration because of a perceived need to promote prosocial behavior and prevent antisocial and inappropriate behaviors.^{13,105,106} A recent book by Sternberg and Jordan, entirely devoted to the subject of wisdom, listed cognitive ability, insight, reflective attitude, concern for others, and real world skills as the five essential components of wisdom.¹⁰³ We suggest that it is precisely such deep, balanced qualities of wisdom that health care professionals need to

cultivate. Sternberg et al. also advised that “teaching for wisdom” be based on encouraging students to reflectively develop their own prosocial values.¹⁰⁶ They suggested students be taught to “monitor events in their lives and their own thought processes about these events,” using discussions and perhaps journaling about their own feelings and experiences or those found in literature, poetry, and films.¹⁰⁶ We suggest that mindfulness meditation may provide a more direct means of monitoring thoughts, motivations, emotions, and behavior. Indeed, Epstein recommended mindfulness training as a potentially effective method for students to bring these to awareness and help elicit appropriate constructive change.^{19,22} Beyond the possibility of increasing efficiency and effectiveness in these areas, constructs like wisdom and mindfulness have the potential to profoundly improve quality of life.¹⁰⁷ As Ardel wrote in the foreword to Sternberg and Jordan’s book, “Both the pursuit and realization of wisdom bring forth positive emotions of joy and serenity through transcendence of self-centeredness.”¹⁰³ Mindfulness training may be a practical way to help re-establish the ideal of wise health care professionals doing their best for patients and, in the process, deriving profound satisfaction¹⁰⁸ as well as improved personal well-being and health.¹⁰⁹

Self-Care, Mindfulness, and Professional Efficacy

Self-care is considered essential throughout professional life,¹¹⁰ despite the observation that physicians, dentists, and nurses find it difficult to be “patients.”^{99,111-114} Interestingly, care of others and care of self appear to be interdependent. Studies^{115,116} confirm the theory^{83,111,113} that health care professionals’ well-being positively impacts their work-related effectiveness. Likewise, it stands to reason,^{112,117} and studies¹¹⁸⁻¹²² confirm, that impairment of health care providers negatively impacts their patients’ health care and safety. The results of a small survey of practicing family physicians lends support to the logical notion that a healthy balance is near the middle between the extremes of self-interest to the detriment of patients and self-neglect in the service of patients.¹²³ We suggest promoting a balanced approach to self-care by having students reflect on and discuss in small groups how the aspiration (the good life) and obligation (the right thing to do) aspects of ethics,¹²⁴ like self-care and patient care,^{115,116} are

actually interdependent. Instead of seeing it as a burdensome “should list,” we recommend reframing professional morality as a vital prerequisite for enjoying a truly high quality of life.

Mindfulness training has been shown to help promote well-being, as summarized in a recent review of the research literature,⁴¹ with neuroimaging studies suggesting possible mechanisms of action.^{57,125} Two studies on nursing students^{23,126} add credence to the theory^{19,21,22,27} that more mindful health care workers provide better health care. Experiential self-care activities like mindfulness meditation have more sustainable effects than lectures and other strictly intellectual modalities, according to a recent survey of medical educators.⁷⁵ Activities outside of professional life, like maintaining a mindfulness meditation practice at home, are thought to have an impact on attitude and performance at work.¹¹ We therefore suggest mindfulness meditation practice as a potential practical bridge between two aspects of ethics: aspiration and obligation.

Behavior, Values, Congruence, and Coherence

Dental and medical education involves a socialization process, during which students acquire “a new identity in life,”¹²⁷ that of health care professionals. Attempting to change students’ behavior directly may be considered to be coercion or indoctrination,¹²⁸ whereas attempting to change their values through persuasion is said to honor their “opportunity to make a free choice based on accurate information,” build meaningful communities, foster stable change, and help resolve ethical conflicts.¹²⁴ So even though behavior may be the most easily measured, taught, and enforceable marker of professionalism,^{16,129} emphasis is increasingly being focused on the underlying values and motives.^{14,128,130}

The results of a recent qualitative study of medical students, residents, faculty, and patients showed preference for health care professionals who manifest personal congruence, i.e., internal values and external behavior match.¹²⁷ Personal congruence has been shown to benefit health care professionals¹³¹ as well as their patients: clinician-directed health promotion interventions were shown to be most effective when the clinicians themselves regularly practiced these healthy behaviors.¹³² Also, dentist-

directed relaxation techniques are considered to be most effective when the dentist teaches the technique primarily by embodying its result.²⁸

Mindfulness meditation is a dogma-free method of introspection that may help those who practice it become more aware of, and live in accordance with, their own deepest values and motives. Consistent with this quest for congruence, mindfulness meditation trainers are advised to “embody mindfulness by having their own personal mindfulness practice . . . [because] trainers are not playing a role, they are actually living the mindfulness practice.”¹³³ Mindfulness trainers with ongoing mindfulness practices not only teach the theoretical and scientific dimensions, but perhaps more importantly, can embody personal congruence and mindfulness.³⁵

Congruence and coherence are closely related aspects of harmonious personality integration shown to be correlated with optimal psychological health and well-being.¹³¹ A measurable world view of considerable potential relevance to health care professionals is Antonovsky’s sense of coherence (SOC): a deep global orientation in which people expect things to work out, because they feel that life is 1) understandable, 2) manageable, and 3) meaningful. SOC is exemplified by developing active, adaptive styles even under severe stress, thus allowing physical and psychological health to be maintained.¹³⁴ SOC is thought to promote health by providing a “structure of meaning” to stressful events.¹⁰⁷ Mindfulness (MBSR) training was shown to significantly increase SOC in a randomized trial.¹⁰⁷ Furthermore, a dose-response relationship between mindfulness practice and SOC enhancement was demonstrated.¹⁰⁷ SOC and mindfulness are both global orientations—“ways of being in the world” that facilitate appropriate response, rather than habitual reactivity, and an openness to whatever life presents.^{36,107} We propose that dental students would likely benefit from boosting their SOC, which would result in perceiving stressors as more manageable and nonthreatening and having more flexible responses to stress by making use of coping resources.¹⁰⁷ The potential for students to be able to enhance, via mindfulness training, something as deep as their “global orientation” is very promising. It points to the possibility that mindfulness training might help students access, and positively affect, their own values and attitudes toward professionalism and self-care.¹⁰⁸ We do realize that the aptitude for and commitment to practicing mindfulness, like “reflection,”⁶⁸ will likely vary among students.

Mindfulness in Education

Schön⁶⁶ and Rockefeller¹³⁵ contend that insufficient attention tends to be paid to reflection, values, and wisdom in education systems that give “privileged status to systematic, preferably scientific, knowledge.” This perceived imbalance has also been commented on in medical^{26,85,108} and dental training.^{106,135,136} Based on a literature review, Chambers suggested that the influence of the dentist’s personality, character, and values on the effectiveness of oral health care is underestimated, even within the dental profession.¹³⁷ Yet in health care, much as in social work, “melding . . . what one knows (training, knowledge, techniques) with . . . who one is (personality traits, belief systems, and life experience) is a hallmark of skilled practice,”¹³⁸ and this requires self-knowledge.⁷³ In the words of Cohen, “The physician professional is defined not only by what he or she must know and do, but most importantly by a profound sense of what the physician must be.”¹³⁹

The University of Massachusetts Medical School has offered an MBSR course (“The Contemplative Mind in Medicine”) for interested first- and second-year medical students since 1985. The Monash University Medical School in Australia, as part of its overall holistic approach, has been teaching meditation to medical students for over fifteen years.²⁴ Medical students (at Jefferson Medical College) who took part in a ten-week MBSR elective had significantly lower total mood disturbance scores compared to controls, suggesting that this mindfulness-based program is an effective stress management intervention for medical students.²⁰ Eighty-eight percent of these students rated mindfulness practice as helpful or very helpful; 71 percent felt more mindful in daily life; 60 percent felt more effective handling stress; and 98 percent would recommend MBSR for other medical students or would refer patients to an MBSR program. MBSR studies of other medical,¹⁷ as well as nursing students,²³ found significantly reduced anxiety levels. In addition to helping reduce their overall psychological distress, including depression, mindfulness training helped medical students increase their overall empathy.¹⁷

Based on a review of research and theoretical analyses, Zoppi and Epstein characterized mindful physicians as more capable of “being in relation” with their patients, creating “healing relationships” through effective communication; not only emotionally self-aware, but also more aware of their own mental processes moment to moment, in all patient-

related activities; exhibiting presence, attentiveness, and curiosity; and less hindered by preconceptions.⁸⁴ These interrelated and overlapping attributes that can potentially be cultivated through mindfulness practice may be able to help clinicians deal more clearly and appropriately with people and events in daily life.^{36,140}

Formally incorporating meditation into university education has been described as “one of the most dramatic departures from conventional educational strategies in our times.”¹³⁶ Practical recommendations for teaching meditation in academic settings include the following: supplementing lectures and readings about meditation with meditation practice; using adequately trained and experienced faculty; having appropriate time and space reserved for meditation practice; practicing cultural sensitivity with flexibility to integrate diverse traditions; having the flexibility to encourage students to pursue formal practice outside the university;¹³⁶ allowing critical reflection on the experience in small groups;¹³⁵ and, finally, employing meaningful and valid curriculum assessment methods.¹⁴¹

With today’s multicultural student population, containing “a cacophony of different and often conflicting moral communities,”¹⁰ a prosocial stance and new appreciation for the central role of the healing relationship in medical-dental morality can be the unifying basis for professional values.¹⁴² Since meditation tends to be well accepted in most religious as well as secular settings, we suggest that it could serve as a common practice to help promote professional values and self-care. This approach can supplement Kinghorn et al.’s recent suggestion for teaching professionalism, in which students are encouraged to participate in their respective “communities of virtue” so that professional virtues are “cultivated from within rather than imposed arbitrarily from without.”¹⁰

Mindfulness in Dental Education

The only report of mindfulness training for dental students is by Raymond et al., on the Canadian Medical Association’s website.²⁹ They taught mindfulness meditation to thirty-two interested preclinical and clinical Harvard medical and dental students, stressing “self-reflection; reflective listening; journaling; communication in the service of negotiating effective relationships and seeking support; team-building; and leadership. These skills were practiced

within the workshop setting and in student pairs between the workshop sessions. Skills development was explicitly linked to personal growth and professional application.²⁹ The assessment of the outcomes of this training has not yet been reported.

For several years, the senior author (JGL) has taught mindfulness meditation, in conjunction with the rapid relaxation (RR) technique, to graduate dentists, physicians, and psychologists in continuing education courses.²⁸ In the RR context, clinicians learn mindfulness meditation to cultivate calm aware presence, so they can teach patients to be calm by embodying calmness. Also, they need to have experiential knowledge of open awareness and equanimity—the desirable state toward which they aim to guide anxious, fearful patients.^{140,143} Our impression is that these courses have been well attended and that the patient-management and self-care aspects were equally appreciated.

During orientation week 2007, the senior author (JGL) gave an introductory lecture on “Mindfulness in Dentistry” to first-year dental and dental hygiene students at Dalhousie University. During this session, students experienced five minutes of sitting mindfulness meditation, followed by a discussion of the experience; then, they heard a lecture on the drawbacks of mindlessness (rumination, catastrophization, interpersonal disconnect), followed by a description of the benefits of mindfulness in general and its dental relevance (self-care, stress management, improved relations with professors and patients). A printed handout, which included local and web-based mindfulness meditation resources, was provided. Of the seventy-six students registered, seventy-one completed anonymous written evaluations, and sixty-two (87 percent) stated that the session would “have a positive impact on [their] professional activities.” Interesting written comments included the following: “[This] let me know I’m not alone in having my mind wander”; “Interesting—never experienced anything like it since it was not purely scientific”; “It made me realize that I also need to take care of myself.” A number of students recommended additional time be allotted in the curriculum for mindfulness training; this is being implemented. Our curriculum committee has approved plans for a lecture on mindfulness at the beginning of each year of dentistry and dental hygiene, each with a different stage-appropriate emphasis. In the second year, the emphasis will be on teaching the RR technique to help students manage their own and their patients’ anxiety. In the third year, the emphasis will be on cultivating a good chairside

manner: empathy, equanimity, presence, listening skills, patience, and acceptance. In the fourth year, the emphasis will be on self-care, openness to change, and managing uncertainty in a constantly changing world, yet committing to life and lifelong learning.

Nancy Neish, M.Ed., director of the School of Dental Hygiene at Dalhousie University, and the senior author (JGL) plan to offer an elective, “Mindfulness Meditation for Healthcare Professionals,” for interested dental and dental hygiene students. This could potentially develop into an interprofessional elective for students in all the health care professions at our university.

A related research project involving the construction and validation of a values scale for dentists is being conducted by Angela Langille and Vic Catano, Ph.D., of St. Mary’s University and Tom Boran, D.D.S., dean of our Faculty of Dentistry. The purpose of this values research project is to produce a reliable, valid instrument for assessing dentists’ values, which then may help to select for admission those dental applicants who already possess values that closely approximate professional values.

In the planning stages is research to assess the efficacy of mindfulness training in dental and dental hygiene curricula, with respect to increasing professionalism and students’ quality of life. Throughout the curricula, we plan to obtain longitudinal measures of mindfulness, empathy, attitudes towards professionalism, and values.

Summary

A recent review found “little evidence of . . . measures [that are] effective in assessing attitudes towards professionalism” or of “interventions that influence attitude change over . . . time.”¹⁴ The authors of that review recommended that “more global attitudes” be measured and these attitudes be tracked throughout the curriculum. We suggest that mindfulness qualities may represent ideal “global attitudes” that health care professionals can cultivate, during training, at work, and in their private lives. Professionalism and mindfulness are broad overlapping constructs with a common prosocial aim: letting go of selfish, short-sighted rewards and promoting the long-term common good. Both constructs also aim for the highest quality of life for practitioners and patients alike. The time seems ripe for dental educators to incorporate mindfulness practices in dental professionalism curricula.

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