

Using Complementary and Alternative Medicine Curricular Elements to Foster Medical Student Self-Awareness

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Abstract

Purpose

To determine the value that the National Center for Complementary and Alternative Medicine (NCCAM)-funded Education Project leaders placed on self-awareness objectives among their curricular activities, to identify projects' rationales for inclusion of self-awareness activities, and to describe curricular elements used to teach self-awareness.

Method

A survey was distributed to the NCCAM Education Project grantees in October 2006. Survey items sought to identify project directors' perceived importance of self-awareness activities in complementary and alternative medicine (CAM) curricula, rationales for inclusion

of self-awareness activities, and activities to foster self-awareness. Invited reports described in more depth the specific activities in three of the projects.

Results

Fourteen of 15 reporting NCCAM educational projects rated activities to promote self-awareness as highly or very highly valued components, and all projects incorporated numerous strategies to enhance self-awareness. Learning objectives ranged from basic knowledge about mind–body relationships and psychoneuroimmunology, to evidence and indications for mind–body interventions, to training in self-application, to training for intervention with patients. Specific strategies that

increase students' self-awareness included evidence-based CAM activities to help students recognize personal biases that may impair critical thinking; personal health experiences to expand definition of health beliefs; and mind–body medicine skills groups to personally integrate the use of mind–body techniques for wellness and stress management.

Conclusions

Incorporating some of these CAM curricular activities, didactically or experientially, may be a unique way to foster student self-awareness and personal growth.

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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.

—Sir William Osler

Recent articles have noted the importance of self-awareness in medicine and called for the incorporation of activities emphasizing self-awareness in medical training.^{1–5} Self-awareness in the practice of medicine has been described as insight into how one's life experiences and emotional makeup affect one's interactions with patients, families, and other professionals.² Smith, Dwamena, and Fortin³ (p²⁰¹) describe the self-awareness process as becoming aware of

“incompletely recognized attitudes, emotions, behaviors and thoughts.” Similar terms include personal awareness, self-consciousness, and self-reflection. Self-awareness with adequate opportunity for critical self-reflection may result in a capacity to better recognize personal errors and make evidence-based decisions.⁵ Recommended methods to increase medical student self-awareness include reflective activities, such as journaling, narrative training techniques, stress-management groups (including those that incorporate mind–body techniques), and process groups where trainees discuss personal and relational issues that surface in medicine.²

Medicine has had difficulty resolving the challenge of how to train physicians for an increasingly diverse culture where beliefs, values, and preferences differ markedly among patients.⁶ Training about complementary and alternative medicine (CAM) may offer an interesting solution to this problem.⁷ Curricular

concepts concerning CAM provide knowledge about alternative systems of care and traditional and indigenous beliefs, and they may focus on the beliefs patients hold that guide their health behaviors. However, personal beliefs of students may interfere with their objectivity in learning about CAM. Therefore, activities to increase self-awareness are an important strategy to shed light on one's own belief system. Self-awareness activities may also enhance students' personal growth and self-care.²

Beginning in 2000, the National Institutes of Health National Center for Complementary and Alternative Medicine (NCCAM) awarded 15 Education Project grants to incorporate knowledge about CAM into health professions training. In this article, we report on the value that the NCCAM-funded Education Project leaders placed on self-awareness objectives among their curricular activities, identify projects' rationales for inclusion of self-awareness activities,

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and describe curricular elements used to teach self-awareness.

Method

We collected information for this report from two sources: an e-mailed survey to systematically identify NCCAM Education Projects' efforts with regard to self-awareness, and invited reports describing in more depth the specific activities in three of the projects.

Our survey received University of Kentucky IRB approval (06-0739-X3B) with exempt status. We emailed the survey in October 2006 to the principal investigator or a designee at each of 14 NCCAM Education Projects. Because we were interested in medical students, we did not contact the one NCCAM project that was affiliated with a residency program. The contact from 1 of the 14 grant recipients we approached, the American Medical Student Association (AMSA), in turn forwarded the survey to AMSA's six subawardee schools, known collectively as EDCAM Projects. In total, 19 projects (13 NCCAM Education Projects plus 6 EDCAM projects) received the survey. The completed surveys were returned by e-mail or fax. Nonresponders were contacted up to two additional times during the following three weeks.

Survey items sought to assess project directors' perceptions regarding the importance of self-awareness activities in CAM curricula, rationales for inclusion of self-awareness activities, and activities to foster self-awareness. One Likert-scale item sought to rate perceived outcomes of self-awareness as a learning objective. Another Likert-scale item, adopted from the *Competencies in Integrative Medicine* proposed by the Consortium of Academic Health Centers for Integrative Medicine,⁸ sought to rate project directors' perception of a program's impact on learners' recognition that personal beliefs affect patient-treatment decisions. Several survey items not reported here sought to identify competencies associated with professionalism but not related to self-awareness.

Results

Ten of the 14 projects and all six of the EDCAM pilot projects responded.

The two nursing programs did not participate. One replied with a note that they did not perceive the questions, which referred to medicine, as applicable to their project. Descriptive statistics were used to report findings.

Ratings of importance of training in self-awareness

Nine out of 10 of the responding university-based projects rated self-awareness activities as highly or very highly valued. The one exception, Tufts University School of Medicine Program, rated self-awareness activities as having low value. However, that group indicated that their definition of self-awareness differed from the one in the survey and that they "view self-reflection and professionalism as a core part of their training." Their activities related to self-reflection in clinical decision-making skills are described later. Five of the six EDCAM projects also rated self-awareness activities as highly or very highly valued.

Project rationales for activities to train in self-awareness

Some respondents gave a single rationale to support self-awareness activities, whereas others gave multiple rationales. Their written responses were reviewed for common themes and seemed to cluster in distinct categories, which are presented in detail in List 1.

Activities to foster self-awareness

Respondents were asked four questions to identify the activities used to foster self-awareness in the areas of mind-body, self-care, and spirituality. Responses ranged from those activities that were strictly didactic (e.g., lectures) to experiential activities (e.g., simple exposure, skills acquisition). Fifteen of 16 projects reported providing lectures on mind-body skills, 13 reported lectures on self-care, and 14 reported lectures on spirituality. All 15 projects that had mind-body lectures also provided small-group experiential sessions in mind-body skills; two projects also provided large-group sessions. Twelve projects provided small-group sessions related exclusively to self-care, and seven projects had small-group sessions that focused exclusively on spirituality. Learning objectives ranged from basic knowledge about mind-body relationships and psychoneuroimmunology,

to evidence and indications for mind-body interventions, to training in self-application, to training for intervention with patients.

In order of frequency, techniques to enhance self-awareness included meditation, mindfulness meditation, yoga, imagery, progressive relaxation, visualization/compassion meditation, tai chi, movement, biofeedback, reflection groups, Qigong, and reflective/expressive writing exercises. Techniques appearing once on the list were neurolinguistic programming, massage, questionnaires on self-care, nonjudgmental listening, mindful eating, Osler groups, and genogram drawing with reflection on patterns in one's family. Three projects, such as that in the department of physiology at the Georgetown Medical School (described later), noted that their mind-body groups were modeled after the Professional Training Program developed by the Center for Mind Body Medicine in Washington, DC.

Half of the projects offered activities related to spirituality. One director described this as "encouraging students' personal journeys in their pursuit of meaning and connection." All projects addressed the topic of spirituality as it relates to illness and health; some classified it as cultural competence. Four addressed end-of-life issues, palliative care, medical decision making, and patient autonomy. Communication skills in the form of taking a spiritual history were a required skill in several projects. The role of traditional and spiritual healing was addressed. Three projects included specifics about faith traditions around the world. The program at the University of Minnesota had a particular emphasis on spirituality in its curriculum.

Four projects implemented the Healer's Art course, developed by Dr. Rachel Remen at the University of California, San Francisco.⁹ This course focuses on finding meaning in and commitment to the practice of medicine or nursing. One responder commented that the course "reminds participants of gifts they are given by patients while participating in their care. The faculty and students experience connectedness, and their own experiences are made real." Another commented that the course "initiates or augments the process of understanding

List 1

Rationales Given for Supporting Self-awareness Activities by National Center for Complementary and Alternative Medicine Education Project Grant Recipients**Self-awareness is a basic requirement for practicing health care**

- Self-awareness and reflection (are) basic skills on which much of good clinical care is based.
- It is the basis/foundation for medical practice.
- They (self-awareness and health care) are totally linked.

Self-awareness improves advising, decision making, and communication

- An awareness of one's personal perspective and cultural influences should be achieved for the physician to be prepared to assist their patients with CAM (complementary and alternative medicine)-related decisions.
- Physicians without awareness of their personal beliefs system will transfer it to medical decision making and are vulnerable to biases. Biases must be addressed for correct practice of evidence-based medicine. Physicians not aware of their own belief systems are also vulnerable to countertransference reactions, disrupting their ability to deliver patient-centered care.
- Self-awareness is a key element in enhancing students' skills in patient-centered care, communication, and cultural competency.
- Self-awareness is essential for developing a professionalism based on team effort and partnership.
- Further training in cross-cultural and comparative systems of medicine does not impact changes in clinical behavior, unless a practitioner is aware of his or her own beliefs and challenges and of how those impact his or her clinical decisions. It is critical to an expanded definition of professionalism, in the shifting culture in which medicine is practiced today.

Self-awareness is important to self-understanding or insight

- An intrinsic part of a health care professional's ability to respond in a compassionate, humanistic way to each patient as a unique individual is one's knowledge of oneself, one's own needs, and one's own humanness.
- I think it is key—self-awareness informs the person of their thoughts/emotions and how these may or may not affect their actions.
- Only by knowing our internal landscapes can we attempt to discern information coming from the patient versus that coming from within.

Self-awareness is important to accomplish a deeper understanding of CAM

- As one of the least invasive and most well-researched areas, mind–body approaches to self-awareness provide an excellent introduction to learn and experience more about evidence-based CAM.
- The feeling was students would be in a better position to understand how these techniques could help their patients if they first experienced the effects and appreciated the impact they have on themselves.

Self-awareness fosters self-care and personal development

- The rationale was linked to the value of self-care (including mindfulness meditation and relaxation techniques), to stress management, and to the promotion of medical students' wellness.
- Self-awareness is part of professional development. Without self-awareness, students will find it very hard to work effectively with their own anxieties in patient encounters and their insecurity with the evaluative process in medical school. It also builds resilience long term to challenging situations, both personally and at work.
- Self-awareness and introspection are absolutely critical to professionalism. Physicians must understand their high vulnerability to stress, disruptive interpersonal relationships, substance abuse, depression, and burnout (which all have profound impact on their professionalism).

self—one's own beliefs and emotional reactions in the context of providing health care.”

Project self-ratings of influence on learners' self-awareness

All but two projects rated their impact on learners' self-awareness as high or very high. All projects rated their impact on learners' recognition that personal beliefs affect treatment decisions as high or very high.

Experiences in three CAM education projects that enhance self-awareness

As mentioned above, we invited three programs to submit reports describing in more depth specific activities in their Education Projects. These detailed reports are summarized below.

The Tufts program in evidence-based CAM. This Tufts program emphasizes *self-reflection* activities to enhance the

students' abilities to recognize personal and professional biases (clinical, cultural, educational, etc.) and how those biases affect patient and team interactions and clinical decision making. Their approach to CAM curricula focuses on building student skills to take an objective and critical (self-reflective and evidence-based) approach to patient care by both allopathic or CAM practices. The project director at Tufts stated:

We recognize that much of what we do in medicine (allopathic or CAM) is not based on strong evidence. Therefore, our students are trained how to approach patient concerns, issues and questions by learning to ask the right questions, finding and evaluating whatever information is available (looking for best evidence even though some areas have no evidence) and applying that information to the patient (even in the face of uncertainty, while being cognizant of their personal and professional biases).

One activity, built on the epidemiology–biostatistics course and problem-based learning program, was an evidence-based medicine (EBM) exercise where students identified a clinical question related to a patient seen in their physical diagnosis course. Students researched questions using electronic databases that included CAM resources. Students submitted their search strategies via e-mail to professional librarians trained in EBM, and they received individual feedback on the quality of their searches. Clinical application questions were handled by their preceptors and volunteer on-call clinicians trained in EBM. Further reinforcement occurred during required family medicine clerkships with specific EBM exercises and with focused CAM exercises in a fourth-year elective.

AMSA's tool for developing an individualized health plan. Among other efforts, AMSA created a Web-based tool,

Healing the Healer, to encourage students to define their own health. AMSA wanted to enable the students to use themselves as a “first patient” so that self-reflection would lead to an expanded sense of professionalism. The tool focuses on five foundational ingredients of health: lifestyle choices, nutrition, family history, mind–body influences, and spiritual connection. *Health-hint* links to more specific topics enhance educational impact. After completing all the questions, students receive a summary to be printed for future reference. To honor confidentiality, no personal information is retained online. The intent is that students will use the tool later in their careers so they may observe changes. From August 2005 to August 2006, there were 10,683 hits on the Healing the Healer Web site. A short survey presented to users at the end of the questionnaire collected data on the wellness tool’s effectiveness. Of the first 500 users, 80% responded that they learned something new, 54% strongly agreed or agreed that the tool would enhance their ability to discuss core concepts of health with their patients, 50% felt the tool helped them understand how they could improve their own health, 38% agreed that the module would change their behavior towards improved health, and 88% reported that the module improved their understanding of health as a concept.

Georgetown University School of Medicine’s Mind–Body Medicine course. The Mind–Body Medicine course is offered to first-, second-, and third-year medical students, graduate physiology and nursing students, and faculty members. Each class of 10 meets for two hours, once a week, for 11 weeks, with two faculty members who cofacilitate the sessions. Of utmost importance is the creation of a safe environment where positive, supportive, nonjudgmental interaction can take place among the students and the faculty members. During the initial part of each session, students are encouraged to share personal insights and reflections and to discuss ethical and professional issues that arise as they continue their training journey. Students share intimate and sometimes painful aspects of their lives; supportive, collaborative, and collegial relationships are formed. As the course progresses, compassion, trust, integrity, and honesty are enhanced among members. By experiencing and

integrating these qualities into their lives, students will have the awareness and the capability to bring forth these healing qualities when interacting with patients and colleagues in years to come. Students are presented with background information on a number of mind–body approaches, including meditation, imagery, journal writing, biofeedback, autogenic training, art, and movement. The second half of each session brings an introduction to various mind–body techniques, such as mindfulness meditation, a process to deepen and focus attention and awareness intentionally and nonjudgmentally in the present moment.¹⁰ Students then practice the techniques and discuss their experiences with members of the small group. They have an opportunity not only for individual attention and instruction, but also for sharing what they are learning about mind–body medicine and about themselves. Through careful systematic self-observation, students learn to live their lives with greater satisfaction, wisdom, and harmony. Mindfulness meditation may provide periods of stability, clarity, inner peace, balance, and perspective—qualities that ultimately enhance professional behavior. Recently, data have been presented at national meetings from several cohorts of medical students (over 300) who have participated to date. The results suggest that the Mind–Body Medicine course significantly increases self-awareness, empathy, and mindfulness and decreases students’ perceived stress.¹¹

Discussion

All NCCAM Education Projects engaged not only in training students in the why’s and how’s of CAM but also in directly addressing student self-awareness. Their rationales for self-awareness activities not only fit with the definitions and arguments in favor of self-awareness that appear in the literature; they also may have expanded on them by noting their importance in understanding CAM and in promoting self-care.

Project faculty saw themselves as able to influence favorably learners’ recognition that personal beliefs may affect patient-treatment decisions. This is particularly promising, because this item seems comparable to the type of self-knowledge (i.e., recognition of personal biases) that is necessary for patient-centered care and is sought through self-awareness. Project directors did not uniformly rate their

program’s impact on self-awareness as high. This seems consistent with the fact that several projects did not hold student self-awareness as an objective. For example, the Tufts program faculty saw self-reflection as its objective rather than self-awareness, although their activity seemed to seek students’ increased awareness of their own biases. It should be noted that the distinction between self-reflection and self-awareness is that the self-reflection may be considered a learning activity, whereas the self-awareness may be considered an ability or state to be achieved.

Projects provided a significant quantity of exposure to a wide and rich variety of mind–body techniques. Projects including a focus on spirituality were fewer, but when offered, those exposures were rich as well. Several saw spirituality experiences, among which they sometimes included the Healer’s Art course, as an opportunity to enrich the student’s understanding of healing. Most projects saw mind–body, self-care, or spirituality experiences as means to foster self-awareness. Several projects viewed mind–body training, through direct experience with the modality, as an opportunity to expand the learner’s view of what constitutes health.

Mind–body techniques were also seen as an important methodology for training in self-care.¹² Mind–body medicine acknowledges the powerful ways in which emotional, physical, mental, social, spiritual, and behavioral aspects of one’s life directly affect health and well-being. It regards as fundamental an approach that respects and enhances each person’s capacity for self-awareness and self-care, and it emphasizes techniques that are grounded in this approach.¹³ The self-application of mind–body techniques has been argued to be of benefit to the health care provider as a means of managing significant stresses. Experiential self-care activities were considered important by several projects. Telling students how to be healthy is less effective than allowing them to discover this for themselves. When students are active participants as opposed to passive learners, there are more sustainable effects.^{14,15} Personal exploration is required for positive sustainable change to occur. This shift in conscious awareness motivates behavioral change in patient care.¹⁶

In summary, through these NCCAM-funded projects, educators sought to teach self-awareness, emphasizing various goals in this pursuit: healing, self-care, reduced bias, understanding CAM, and finding meaning in medicine. It may not be reaching too far to say that training in self-awareness in some form is not only fundamental to a CAM curriculum, but should be considered a defined component for the training of all health professionals.

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