Position Statement on CAM Education
SGIM CAM Interest Group
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Introduction

Patients and consumers are frequently using Complementary & Alternative Medicine (CAM), and there is an increasing amount of high-quality research available in this field. Unfortunately, medical education has done little to familiarize internists with this research, or to prepare them to be able to confidently offer advice or guidance to patients. Information about these therapies is beginning to be taught in medical schools, but primarily in elective courses (1). Additionally, post-graduate trainees are ill-equipped to have meaningful discussions about CAM with patients (2). Most practicing internists rely on usual medical information resources, the media, and continuing education programs, although knowledge garnered through these venues may be lacking (3).

While the benefits, efficacy and safety of many CAM practices have been vigorously debated (see Appendix A), there is no question about the popularity and utilization of CAM by patients. In fact, hospitals, managed care organizations, and health insurers have developed working models where various CAM therapies are made available as choices to patients or members. Given this popularity, the government appropriates well over one hundred million dollars each year to the National Center for Complementary and Alternative Medicine (NCCAM) for research in this field.

CAM’s popularity is often underestimated. By 1997, the total visits to CAM providers already exceeded total visits to all primary care physicians (4). A comprehensive survey of CAM use in the U.S., released in 2004, found that over 74% of adults surveyed had ever used CAM, and 62% had used CAM in the past 12 months (5). The most popular CAM therapy seems to be the use of dietary supplements. Many dietary supplements and homeopathic remedies are now sold alongside FDA-approved OTC medications on pharmacy shelves, with little attempt at differentiating these therapies.
In a number of surveys, the primary reasons for CAM use include perceived effectiveness, more congruence with patient beliefs and values, and failure of or loss of faith in conventional treatment. A minority of patients using CAM discusses this use with their doctor. Many patients perceive that their doctors lack adequate knowledge about these therapies and disapprove of their use, and as a result, patients often feel uncomfortable discussing their use of CAM therapies with them.

The institute of Medicine of the National Academies (specifically, the Committee on the Use of Complementary and Alternative Medicine by the American Public) has stated: “Conventional professionals in particular need enough cross-related training…so that they can counsel patients in a manner consistent with high-quality comprehensive care. Therefore, the committee recommends that health professional schools (e.g., schools of medicine, nursing, pharmacy, and allied health) incorporate sufficient information about CAM into the standard curriculum at the undergraduate, graduate, and postgraduate levels to enable licensed professionals to competently advise their patients about CAM. (6)”

**Why teach about CAM in Internal Medicine medical education?**

Because of CAM’s popularity, internists in particular are increasingly placed in a position of needing to be “CAM literate”. With our renewed focus on patient-centered care and shared decision making, and with the plethora of treatment modalities patients now have to choose from, internists need to have a basic understanding and knowledge of CAM. This is important for a variety of reasons:

- Many patients utilize or adopt CAM practices from their (or other) cultures. To be culturally sensitive, internists must have a basic understanding of these practices.
- There is now significant research to help distinguish between certain effective, ineffective, unproven or unsafe CAM therapies. It is important that patients view physicians, especially internists, as knowledgeable resources in all aspects of medical care. This should include CAM.
- Internists who have sufficient knowledge about CAM are able to give more credible advice and recommendations that their patients will trust. This will enhance the
patient-physician relationship. In addition, patients may “open up” and discuss their CAM use with physicians who are more knowledgeable and/or open about CAM.

- CAM therapies may interact adversely with conventional therapies, and internists must be knowledgeable about these potential interactions and adverse effects or, at the very least, be aware of good, high quality resources to help them competently protect and advise patients.

- Because of market forces, financial pressures, and limited quality assurance and governmental regulation of many CAM therapies and practitioners, there is much exaggeration, misinformation, pseudo-science and even exploitation in this field. The more “CAM literate” internists can be, the more helpful they can be to protect their patients and offer appropriate advice that the patient will trust.

- Many patients choose to use CAM therapies instead of more effective conventional medicine for serious or life-threatening diseases. Internists who are more knowledgeable about CAM may create a more open doctor-patient interaction, and have a more successful discussion about the risks and benefits of the patients’ choices. Use of CAM in a complementary fashion (along with conventional medicine) may be a successful option for patients with severe, life-threatening illnesses who insist on CAM therapies.

- Many patients legitimately utilize CAM for disorders that are difficult to treat with conventional allopathic approaches. CAM therapies or practices may have benefits that can help patients. Internists should be aware and open to these possibilities.

- Internists may choose to suggest certain CAM therapies as “alternative” or “complementary” to conventional therapies, especially for less serious disorders or those that are difficult to treat (e.g., chronic pain conditions, fibromyalgia, irritable bowel syndrome). An understanding of what is safe and potentially helpful may be beneficial in selected patients.

- Since many patients also use CAM practitioners, internists may be asked or need to refer and/or co-manage patients with these individuals. A basic literacy of CAM can help internists facilitate proper communication and foster collaboration with CAM practitioners, perhaps even in developing a coordinated care plan, with the goal of
optimizing overall care of the patient while respecting the patient’s desire to utilize CAM therapy.

In summary, without active inquiry and involvement by internists regarding CAM use, patients will continue to seek therapies that may affect their health without the appropriate medical guidance that an internist can provide.

**Goals of CAM Education**

The primary goal of CAM education is not to create CAM experts or practitioners, which is outside the scope of Internal Medicine practice, but rather to ensure that internists are trained to communicate effectively with patients about these modalities and to develop a sufficient knowledge-base about CAM (“CAM literacy”) in order to provide intelligent advice. A focus on safety and potential risks and benefits should be the fundamental goal. Additionally, adopting a non-judgmental, supportive posture about CAM can enhance the therapeutic doctor-patient relationship. Internists should develop an appreciation for both the traditional theories and the evidence-based data for CAM.

The practical development of such curricula and teaching are limited by the many controversies surrounding CAM, the lack of an established or authorized core curriculum, and the fact that most Internal Medicine faculty have little formal CAM training or knowledge. The dilemma currently facing medical educators is not whether CAM education should be added to the medical curriculum, but rather how information about this vast heterogeneous body of health and medical care be incorporated into an already full medical education curriculum.

Precisely what should be taught in a formalized CAM curriculum is likely to vary considerably, and is outside the scope of this statement. We feel that all Internal Medicine education programs should contain at least a core of evidence-based information about CAM. The specific content will need to evolve with time as research in this field develops, but can be guided by these core questions (7):

(a) is there evidence that a therapy is being widely used by patients?
(b) is there significant scientific evidence for a therapy’s efficacy or harm?
(c) does a therapy have the potential to treat a medical condition for which conventional medical approaches are lacking?

Programs that have established CAM curricula have learned some practical lessons that are worth highlighting. Phasing in a curriculum over time with limited goals each year make the process more feasible. Starting with a simple series of lectures or conferences is ideal. Field experiences with CAM/integrative medicine practitioners are also very educational. A major challenge is finding supportive faculty and time in the educational curriculum for these additional experiences, as well as reliable and trustworthy CAM or integrative medicine practitioners in the local community.

Because all practicing internists are exposed to patients using or asking about CAM therapies, we highly recommend that the curriculum (whether it be for medical students or residents) be mandatory, rather than an optional elective. The suggested CAM curriculum goals described here are based on recommendations by the Society of Teachers of Family Medicine, Alternative Medicine Working Group (8).

1. Suggested CAM Curriculum Goals:
   a. Primary goals are for physicians to better understand:
      • the basic theories, philosophies and cultural influences on healthcare choices that support major types of CAM practices
      • the major benefits, risks and clinical applications of these disciplines or therapies
      • the evidence-basis for these therapies, and where to obtain reputable information about safety and efficacy
      • how to adopt a non-judgmental, supportive posture about CAM to enhance the therapeutic doctor-patient relationship
   b. Secondary goals are for physicians to better understand:
      • how to help patients integrate CAM and conventional therapies when appropriate
      • the types of patients and conditions that are most suitable for CAM therapy, and how to collaborate with CAM providers
2. **Suggested Basic Educational Strategies**
   - Didactic lectures
   - Small group conferences
   - Field experience/site visits with approved CAM or Integrative Medicine practitioners on the faculty or in the community
   - Selected readings and/or resources for more detailed information, especially evidence-based (see Appendix B)

**References**
Appendix A: CAM Definitions and Controversies of Use

1. What is Complementary and Alternative Medicine (CAM)?

Complementary and Alternative Medicine (CAM) encompasses traditional and non-traditional forms of medical and health care that are not considered to be part of conventional (allopathic or mainstream) medicine. CAM has often been defined as what it is not: "Healthcare practices outside the realm of conventional medicine, which are yet to be validated using scientific methods", or "Interventions neither taught widely in medical schools nor generally available in hospitals". However, scientific research, medical education and conventional therapeutic practices are constantly evolving to include or adopt components of CAM into conventional health care.

While often used loosely, the terms “Complementary Medicine” and “Alternative Medicine” technically refer to how patients utilize these practices in relation to conventional medical therapy. **Complementary** Medicine can be defined as the use of CAM therapies together with conventional medicine. **Alternative** Medicine can be defined as the use of CAM therapies in place of conventional medicine. The term “Integrative Medicine” usually refers to a more patient-centered, wholistic philosophy of medicine that integrates conventional medical practice along with more evidence-based CAM therapies.

Some traditional CAM practices are considered to be more "wholistic" than conventional scientific medicine as these health systems often focus on healing the mind and spirit in conjunction with the body. Other CAM practices or therapies are as focused and single-purposed as many conventional therapies.

The National Center for Complementary and Alternative Medicine (NCCAM) was established within the NIH in 1998, replacing the Office of Alternative Medicine that was founded in 1992. The NCCAM’s mission is to explore CAM practices and therapies in the context of rigorous science, train CAM researchers, and disseminate authoritative information to the public and professionals (1). The NCCAM groups CAM practices into...
four different domains as well as Whole Medical Systems, which cut across these domains:

- **Whole Medical Systems**: Built upon complete systems of theory and practice, these have often evolved apart from and earlier than modern U.S. conventional medicine. Examples include Homeopathy and Naturopathy in western cultures, and Traditional Chinese Medicine (including acupuncture), Ayurveda and many other culturally-based medical systems in non-Western cultures.

- **Mind-Body Medicine**: Designed to enhance the mind’s capacity to affect bodily function and symptoms. Some techniques that were considered CAM in the past have become integrated into mainstream medicine (e.g., biofeedback, and therapies that use creative outlets such as art or music). Other therapies include meditation, hypnotherapy, prayer and mental healing.

- **Biologically Based Practices**: Substances usually found in nature (e.g. herbal or other products) that may or may not have conventional pharmacologic effects.

- **Manipulative and Body-Based Practices**: Therapies based on manipulation and/or movement of one or more parts of the body. Examples include Chiropractic, Osteopathy, Massage, Yoga and Tai Chi.

- **Energy Medicine**: Involves the use of energy fields. Biofield therapies intend to affect energy fields that purportedly surround and/or penetrate the body, usually by applying pressure or manipulating the body with the hands. Examples include Qi Gong, Reiki and Therapeutic Touch. Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields (e.g. magnetic fields or pulsed fields) for health purposes.

2. **Controversies: Advantages and disadvantages of CAM use**

The study and use of CAM is often hotly debated, and will always be a controversial subject for most of the clinical and scientific community. Some of the major issues are listed here:

Potential positive attributes and advantages of CAM:
• The main form of healthcare in many cultures; passed on by traditional practitioners with empirical wisdom and therefore acceptable within the culture
• Often inexpensive and may be available without the need for a professional medical provider
• Often focused on healing the whole person (wholistic), emphasizing causes of disease, "natural healing", disease prevention and life-style changes
• Usually safer than orthodox medical therapies
• Better able to utilize "mind-body" techniques, the concept of hope and the positive power of the placebo effect, thus encouraging patients to harness their own self-healing powers
• May provide comfort and relief in treating conditions where conventional medicine has failed or has no legitimate therapy to offer
• Can be introduced to and utilized by patients more readily than conventional medical therapies that usually have to await the results of controlled clinical trials

Potential limitations and disadvantages of CAM:
• Typically, not as firmly evidence-based or rigorously tested as conventional therapy
• Some "natural therapies" that are considered to be safe and non-toxic can be harmful
• May indirectly harm patients who choose to use CAM instead of utilizing the appropriate effective conventional treatments (especially for serious or acute diseases)
• Little regulation or quality assurance of: (1) many CAM practitioners and (2) substances such as herbs and supplements
• Ineffective "placebo" therapies can be easily marketed to gullible or hopeful patients (i.e.: little protection against fraud, deception and exaggerated claims)
• Tradition, testimonials, popular demand and speculation are often deemed more important than critical thinking and clinical research

References for Appendix A:
1. National Center for Complementary and Alternative Medicine (NCCAM) [http://nccam.nih.gov/]

Appendix B: Suggested CAM Resources

- National Center for CAM (NCCAM) [http://nccam.nih.gov] - NIH agency that supports scientific CAM research and education. Provides general information about CAM and concise summaries of efficacy and safety of various CAM therapies. A clearinghouse for CAM-related materials prepared by any of the NIH institutes.

- Consortium of Academic Health Centers for Integrative Medicine [www.imconsortium.org] – Consortium of academic medical schools with an interest in CAM and Integrative Medicine

- Focus on Alternative and Complementary Therapies (FACT): An Evidence-Based Approach [www.pharmpress.com] - Quarterly review journal with abstracts and critical commentary of the worldwide CAM literature.

- Medline Plus – Herbs and Supplements [www.medlineplus.gov] – Written by The Natural Standard and maintained by the National Library of Medicine, contains monographs on herbs and supplements, including evidence-based summary paragraphs.