Promoting education about complementary or alternative medical therapies

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As health care professionals, pharmacists must constantly expand their knowledge base to keep current with the ever-growing body of information on therapeutic substances and disease management. The scope of this information is determined by many factors, but trends in patient interest and demand are important driving forces. In the United States, a critical mass of patients is demanding a personalized, thorough, and preventive approach to health care. These demands for a more holistic approach, coupled with greater interest in self health care, natural products, and the integration of spirituality and health, have resulted in a public enchantment with alternative medical therapies, as was documented in a well-cited 1990 survey by Eisenberg et al.

Pharmacists and other health care professionals are finding themselves ill-equipped to address the issues that arise from the growing use of alternative therapies. This is something most of the public using these therapies has already discovered. In a 1997 telephone survey of 1008 adults, 323 of the participants (32%) had used an herbal medicine in the previous year; of these, only 4% included pharmacists as an information source for herbal products (5% included television; 9%, physicians; 13%, health food stores; 35%, books; 37%, magazines; and 41%, friends and family). It is to the advantage of all health care professionals and their patients to acquire basic knowledge of the principles, efficacy, and safety of alternative medical therapies.

Because alternative therapies are typically used to complement conventional health care rather than replace it, the terms “complementary or alternative medicine” (CAM) and “integrative medicine” are commonly used to refer to them. CAM was defined during the CAM Research Methodology Conference in 1995 as “a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period.” Additionally, it was stated that CAM “includes all such practices and ideas self-defined by their users as preventing or promoting health and well-being” and that “boundaries within CAM, and between the CAM domain and the domain of the dominant system, are not always sharp or fixed.”

The need for education and information

Most Western practitioners have difficulty accepting CAM therapies because the safety and efficacy of these treatments are not established. Scientific information on CAM therapies is inadequate, nonexistent, or relatively difficult to retrieve. Nonetheless, if the Western medical community desires hard data, then practitioners must receive the education needed to produce it. Such education can include instruction on the general principles and claims of the more popular CAM therapies and would ideally take place in schools and continuing-education programs. Until such teaching is readily available, however, pharmacists will have to acquire knowledge of CAM therapies through self-education. Practitioners therefore need access to appropriate reference materials on herbal medicines, vitamins, supplements, and CAM practices in their work environments. These resources were recently reviewed by Chavez and Chapman and Eisenberg.

As suggested by Thompson, all pharmacists should identify patients using CAM therapies and should encourage such patients to discuss these therapies with them. Discussions should take place on an ongoing basis and should explore the potential for therapeutic effects, adverse reactions, and interactions (drug-herb, etc.).
herb–herb, supplement–drug, etc.). Equipped with appropriate reference materials, pharmacists can pursue collecting and submitting this information to the literature and, when appropriate, to FDA’s MedWatch program. As a database of anecdotal evidence develops, researchers will be able to identify therapies that warrant scientific investigation and thereby further expand the quality of educational resources.

**Education about herbal and homeopathic medicines, vitamins, and supplements**

Given pharmacy’s historical basis in medicinal herbs and pharmacognosy, who better than pharmacists, as drug experts, to also be herbal experts among practitioners of conventional medicine? Addressing herbal medicine is a logical first step in educating pharmacists about CAM therapy because the therapeutic application of herbs can be similar to that of conventional drugs. To optimize educational experiences, prevent repetition in school curricula, and produce uniform educational standards, we believe that the approach should consist of incorporating herbal medicine education into existing required courses (to some extent, this has already been done). Therefore, the problematic issues of herbal product standardization and preparation can be addressed in pharmaceutics classes and laboratory sessions, herbal pharmacology (when data are available) can be included in pharmacology courses, and herbal therapeutics can be integrated into therapeutics and nonprescription product courses. Also, herbal products can be included with other nonprescription products on the shelves of professional practice laboratories and included in laboratory exercises.

Ultimately, pharmacy school curricula must be designed so that students gain not only an understanding of herbal therapeutics but also an appreciation for the issues surrounding herbal medicines. Issues of particular importance are safety, efficacy, and the need for standardized preparations and dosage information. Since current data pertaining to these issues are relatively scarce, students must be equipped with the proper background to make educated judgments in clinical practice and therefore to help identify, and contribute to, future areas of research. Another issue that should be addressed, but that is overlooked in most current herbal medicine classes, lectures, and textbooks, is the use of herbs by many CAM practices in a manner unfamiliar to conventional scientific thought. Practices such as folk herbalism, shamanism, and traditional Chinese medicine recognize herbs for energetic rather than mechanistic properties. In traditional Chinese medicine, for example, an herb is chosen because it is “hot” or “cold” or because it “disperses blood” or removes “stagnation,” not because it “nonselectively antagonizes β-adrenergic receptors” or “increases the synaptic concentration of serotonin or norepinephrine.” Although it is likely that most people using herbs in the United States do view them as having certain pharmacologic actions, no approach to herbal education would be complete and accurate without addressing the “energetic” use of herbs in CAM practices. Understanding herb use in CAM is critical because patients may disregard, or even avoid, pharmacists and other health care practitioners who do not understand their health beliefs. Pharmacists can be taught the energetic properties of herbs through a separate course addressing health beliefs in CAM, through integration of this material into herbal lectures in existing curricula, or perhaps through any course that addresses the history and seminal issues of health care.

Pharmacists should also seek knowledge on the uses of and claims for vitamins and supplements because, like medicinal herbs, these are sometimes used in a manner that is at variance with conventional scientific thought. This variance typically stems from theory or highly extrapolated scientific evidence that is inconsistent with conventional indications or statements of optimal dietary allowances. Examples include unusually high doses (megadoses) of vitamins and the use of carnitine (which, among other actions, facilitates the aerobic metabolism of carbohydrates) for weight loss. Education about the more widely used products in these categories should be approached in much the same way that medicinal herbs are—through integration into existing curricula—and should consider any differences in rationale for the use of specific products.

A CAM practice in which all pharmacists should have basic knowledge is homeopathy. Although the involvement of pharmacists in homeopathy has been controversial, we believe the ideal approach to it and other CAM therapies has been wisely summarized by Hasegawa: “Many patients put great stock in unconventional treatments. Pharmacists must educate themselves about such treatments while remembering the virtues of tolerance and understanding. Only then will they be in the best position to help these patients make appropriate decisions about their therapy.” What makes homeopathy a CAM practice is its treatment philosophy, but beyond basic philosophy lie a wealth of products that are widely used around the world and a public demand for information on them. As with herbal medicines, education on homeopathy can be integrated into pharmacy school curricula. Preparation and dosage form issues can be addressed in pharmaceutics classes. Symptom-based (versus constitutional or individual-based) therapeutic remedies can be addressed in therapeutics and nonprescription drug courses and included in professional practice laboratories. Finally, the principles of homeopathy and the use of remedies on a constitutional or individualized basis can be addressed in the above-mentioned classes or through a separate course on CAM practices.
Education about CAM practices

To gain a comprehensive understanding of any CAM practice, pharmacists will need the opportunity to learn about specific practices directly from practitioners both in the classroom and in experiential education. The Massachusetts College of Pharmacy and Allied Health Sciences (MCP/AHS) offers an elective course that introduces the principles, socioeconomic issues, and practice issues of the more widely practiced therapies. CAM practitioners and course coordinators address these issues in relation to the practices of chiropractic, homeopathy, herbalism, naturopathy, traditional Chinese medicine, Ayurveda, Reiki, shamanism, massage, essence therapy, aromatherapy, and mind–body therapies. Students are encouraged to explore health beliefs about and key diagnostic elements of the various practices, the appropriate therapeutic applications and precautions, the importance and extent of use of nondrug therapies, and the available research examining efficacy, safety, and patient attitudes.

Education about CAM therapies can be expanded beyond the classroom. Just like other clerkship rotations, CAM experiential rotations will allow students to learn principles, philosophies, and therapeutic applications directly from practitioners. Unlike what occurs in most conventional rotations, however, students may be given a chance to experience the various treatments firsthand, will gain an appreciation for the spiritual and energetic components of the healing process, and will be exposed to a patient population they might not otherwise encounter.

It has been our experience that many CAM practitioners are willing to accept pharmacy students at their practice sites. CAM practitioners find such relationships mutually beneficial, as students are able to address questions from patients and providers about conventional medicines. Students will not only be able to see and judge for themselves the effectiveness and safety of these practices but will also observe how patients integrate their CAM therapies with conventional medicine. Such information will serve as building blocks in establishing pharmacy-based care plans that integrate conventional medicine with CAM therapies. These experiences and relationships will also facilitate studies of the efficacy and safety of CAM therapies and help generate much-needed yet thus far elusive scientific data.

Students can be integrated into a variety of practice sites with CAM practitioners who are interested in improving their services, particularly those with many patients who are also using conventional medicines. At MCP/AHS, doctor of pharmacy students have the option to take part in a one-week elective rotation at the practice sites of chiropractors, naturopathic physicians, acupunctureists, homeopathists, and massage therapists. In addition, students choosing this rotation can visit a conventional pharmacy that specializes in herbal and homeopathic medicine, vitamins, and supplements.

Conclusion

The integration of CAM practices with conventional medicine is emerging as an important issue in health care and should not be a topic pharmacy ignores. All practitioners should attain basic competency in the areas of herbal and homeopathic medicine, vitamins, and supplements. To fulfill the mandate of pharmaceutical care, it will also be essential for practitioners to understand the basic philosophical and treatment principles of the more common CAM practices, since they generally differ from conventional thought. CAM education should begin with the integration of information on CAM products into existing curricula and continuing-education programs. Coursework focusing on the principles and philosophies of CAM practices is equally important. The pharmacy profession is in a position to contribute valuable information on the CAM phenomenon, support its role in health care where appropriate, and gain recognition for cognitive services and pharmaceutical care in this area. Failure to provide for the wide-scale education of the pharmacy community about CAM therapies would not only neglect an opportunity that could have a profound positive effect on the profession but would be a great disservice to the public and other health care professionals.

References