The Academy of Integrative Health and Medicine and the Evolution of Integrative Medicine Practice, Education, and Fellowships

David S. Riley, MD; Robert Anderson, MD; Jennifer C. Blair, LAc, MaOM; Seroya Crouch, ND; William Meeker, DC, MPH; Scott Shannon, MD, ABIHM; Nancy Sudak, MD, ABIHM; Lucia Thornton, RN, MSN, AHN-BC; Tieraona Low Dog, MD

The origins of the Academy of Integrative Health & Medicine (AIHM) date back at least to Evarts G. Loomis, a medical doctor trained at Cornell Medical School, who in 1958 opened the Meadowlark Center in California.¹ Integrative and holistic medicine at the Meadowlark Center grew through key iterative steps into the American Holistic Medical Association (AHMA) in 1978, the American Board of Integrative Holistic Medicine (ABIHM) in 1996, the AIHM in 2013, and the Interprofessional Fellowship in Integrative Health & Medicine in 2016.

The effective medical management of acute disease received a significant boost from the discovery of antibiotics in 1928-evolving into the pharmaceutical model we have today that emphasizes drugs as a primary means to treat disease. Two years earlier in 1926, J. C. Smits coined the term holism, defined in Holism and Evolution as "the tendency in nature to form wholes that are greater than the sum of the parts through creative evolution." This interplay between reductionism and holism forms a counterbalance in the history of medicine. Complementary and holistic medicine in the United States, relatively underground from 1930 to 1960, began to re-emerge with the awareness that chronic disease was replacing acute disease as the predominant health problem in this country² and that a reductionist pharmaceutical model alone might not be sufficient for the prevention or treatment of chronic disease.

The rise of complementary medical schools in chiropractic, naturopathic, and traditional Asian medicine (TAM), all with a deep respect for holism, began in earnest during the 1960s in the United States. With the profession having been established in 1897, chiropractors are now licensed in all states and many other countries. Approximately 81 000 chiropractic practitioners in the United States see 14% of the adult population annually, mostly for back pain and other complaints related to the musculoskeletal system. Doctors of chiropractic are known for expertise in spinal manipulation and other forms of manual therapies, and they are increasingly being hired in integrated health delivery systems such as the Veterans Health Administration, the Department of Defense, and corporate health clinics. There are currently 17 accredited colleges of chiropractic.

Naturopathic medicine, a unique model of primary care medicine and one of the true sources of holism in health care, coalesced into a discrete profession in the 1890s. Naturopathy today incorporates conventional biomedical research and evidence advancements as applied to natural therapies. Currently, there are 6 accredited naturopathic medical schools providing clinical care and in some cases—where funding is available—residency training.^{3,4}

Traditional Asian philosophy never truly embraced the Western concepts of reductionism and, as such, reflects holism in its nonlinear approach to health care. TAM in the United States, although popularized by James Reston during President Nixon's visit to China in the 1970s, dates back to the 1800s. There is a growing body of evidence supporting the role of TAM in primary care.^{5,6} There are currently more than 50 accredited acupuncture and Oriental medical schools in the United States and the practice of acupuncture and Oriental medicine is currently licensed in 45 states.7 At its roots, TAM follows the philosophy of Zhi Wei Bing: "Treat to prevent disease." Today TAM continues to evolve with the introduction of therapies such as neuro-(scalp) acupuncture, a contemporary therapy in TAM that integrates knowledge of Western neuroanatomy with acupuncture.⁸ Japanese, Korean, Vietnamese, and Western influences continue to inform one of the oldest continuously practiced medical traditions.

In 2008, the Academic Consortium for Complementary and Alternative Health Care (ACCAHC) was incorporated to promote policies that advance interprofessional collaboration and education for complementary professions that are recognized by the US Department of Education and have testing and licensure for practice—including chiropractic, naturopathy, and TAM.

The nursing community, which has always been intimately involved with care for the whole person, founded the American Holistic Nurses Association (AHNA) in 1981. *Holistic nursing* is defined as "nursing practice that has healing the whole person as its goal." Today, approximately 35% of holistic nurses work in hospitals, 22% in universities and colleges, 16% in private practice, and 12% in ambulatory and outpatient services. For those who meet additional training requirements, board certification in holistic nursing and/or health and wellness coaching is offered for registered nurses and advanced practice nurses with graduate degrees and nurse practitioners.

In 1968, Linus Pauling coined the term orthomolecular to describe what evolved into orthomolecular medicinethe therapeutic use of substances that occur naturally in the body. In 1978, a total of 7 years after the formation of the AHNA, 4 physicians joined Dr Evarts Loomis at the Meadowlark Center to establish the AHMA. This organization supported medical doctors who practiced medicine with an awareness of the importance of the provider-patient relationship and the limitations associated with relying on the pharmaceutical model. During the next 15 years, the AHMA grew into a membership organization benefitting thousands of medical doctors who incorporated holistic therapies ranging from ayurveda to orthomolecular medicine into their practices. In 1996, members of the AHMA founded the ABIHM to offer the first peer-reviewed, psychometrically validated board certification exam for medical doctors and osteopathic physicians in holistically informed medicine. This was the first important standard in integrative holistic medicine board certification available in the United States. More than 3000 medical doctors (MDs) and doctors of osteopathy (DOs) became ABIHM Diplomates. ABIHM provided invaluable mentorship programs, evidence-based training materials, online coursework, and a global network of interdisciplinary colleagues. Integrative holistic medicine became a model for health care that reaffirmed the relationship between practitioner and patient, focused on the whole person, was informed by evidence, and made use of all appropriate therapeutic approaches and health care professionals to promote optimal health and healing. Physical, mental, and spiritual aspects of life are all viewed as interconnected and important aspects of treatment.

Interest in complementary medicine and holism at conventional academic medical centers began to grow during the late 1980s, with the University of Maryland establishing the first complementary medicine program in 1991.9 Subsequently, an increasing number of academic medical centers began to offer educational opportunities for medical students, residents, and fellows and the words integrative medicine began to enter medical taxonomy. In 1999, the Consortium for Academic Centers for Integrative Medicine (CACHIM) was formed at a meeting that included representatives from Duke University; Harvard University; Stanford University; University of Arizona; University of California, San Francisco; University of Maryland; University of Massachusetts; and the University of Minnesota. Curriculum guidelines were published in 2004 that articulated a series of key competencies for integrative medicine for conventional medical school education.¹⁰ In 2014, key competencies for integrative medicine fellowships were published.¹¹ Today, more than one-half of conventional medical schools in the United States are now members of the Academic Consortium for Integrative Medicine and Health (ACIMH), formerly CAHCIM.

As increasing numbers of medical doctors and osteopathic physicians underwent formal fellowship training, it became increasingly clear that the field had matured to a point where a national board certification was necessary. In 2012, leaders from ABIHM, along with leaders from the University of Arizona Center for Integrative Medicine, under the auspices of the American Association Board of Physician Specialties (AABPS), created the first official board certification in integrative medicine for medical doctors and osteopathic physicians.

Profession	Clinicians Licensed in the United States in 2015	States Licensed	Information Source
Chiropractic Doctors (DC)	81 000	50	ACA
Medical Doctors (MD primary care)	425 000	50	FSMB
Naturopathic Doctors (ND)	4400	18	AANP
Osteopathic Doctors (DO)	73 000	50	AOA
Nurse Practitioners (NP)	175 000	50	Henry J. Kaiser Foundation
Physician Assistants (PA)	92 000	50	Henry J. Kaiser Foundation
TAM (LAc, DOM)	27800	45	NCCAOM

Table 1. 2015 Estimates of Actively Licensed Practitioners in the United States¹²

Abbreviations: TAM, traditional Asian medicine; LAc, licensed acupuncturist; DOM, doctor of Oriental medicine; ACA, American Chiropractic Association; FSMB, Federation of State Medical Boards; AANP, American Association of Naturopathic Physicians; AOA, American Osteopathic Association; NCCAOM, National Certification Commission for Acupuncture and Oriental Medicine.

AIHM Principles

- Prevention is the best intervention
- Integration of healing systems is effective
- Holistic medicine is relationship-centered care
- Care should be individualized
- Teach by example
- Healing powers are innate
- All experiences are learning opportunities
- Embrace the healing power of love
- Optimal health is the primary goal

For all the efforts that have been made that allow health consumers greater access to well-trained complementary and integrative professionals, most clinicians continue to operate in a fragmented system. There is medicine. But there is no integration. Patients often feel ignored and lost, with little or no communication occurring between their pharmacist, medical doctor, nurse, chiropractor, dentist, or other professional who provides for their care. Practitioners can also feel isolated and overwhelmed, with a similar loss of heart and soul in their work. Although integrative medicine strives to help address health creation and thus reduce the burden of chronic disease, all too often these principles are lost in the isolation of practice and the lack of collaboration. Two organizations recognized the need for interprofessional collaboration. In 2008, the AHMA began to offer membership to all licensed clinicians and the ABIHM embraced a model of collaborative care among providers and between disciplines. Mimi Guarneri, MD, proposed the creation of an Academy for Integrative Medicine to the ABIHM board in 2011. Envisioning a shared future, the leaders of the ABIHM invited the AHMA to join the AIHM, which was announced in October 2013 at the ABIHM annual conference.

The AIHM realized that interprofessional teams would require interprofessional training, which could happen only with interprofessional healing. This would necessitate the elimination of barriers and artificial hierarchies while building bridges between professional silos. The AIHM board, established in April 2014 and led by its president, Mimi Guarneri; and chair, Daniel Friedland, MD, sought to create an interprofessional platform for leadership that included members from organizations with an interprofessional focus such as ACCAHC (John Weeks and Pamela Snider, ND) and the Integrative Health Policy Consortium (Len Wisneski, MD). During the following months, an interprofessional group of clinician leaders in integrative medicine including Jennifer Blair, LAc, MaOM; Rauni King, RN, MIH, BSH, CHTP/I, HNB-BC; Bill Meeker, DC, MPH; and Lucia Thornton, RN, MSH, AHN-BC, joined the AIHM board to create a new vision of interprofessional collaboration and education.

As the result of this collaborative process, in February 2016, the AIHM will launch the first Interprofessional

Fellowship in Integrative Health & Medicine. This transformative and groundbreaking program provides the missing element: an educational model that incorporates interprofessional training on a foundation of holism with the value of modern science delivered by leading educators in the field.

According to Tieraona Low Dog, MD, director of the AIHM's Interprofessional Fellowship:

We must consider the social conditions that perpetuate disease, the undeniable connection that exists between the health of our planet and ourselves, the empowerment of people to be involved in decisions that involve their health, and the use of safe, lower-cost interventions for the prevention and, when appropriate, treatment of disease. We must also recognize, respect and actively engage a wide range of health professions that can play a role in improving lives. A brighter future requires a shared vision and clinicians who have been trained to work together in order to promote and restore the health of our people. This basis of deep respect and reverence defines the values supporting the Academy's Fellowship program, a new and innovative educational model that fosters the collaboration and training of diverse practitioners in an interprofessional, team-based approach to healing.13

Ninety years after the word *holism* was coined, it would appear that health care has come full circle with an interprofessional fellowship program that represents the best of holistic philosophy, modern science, and a deep respect for the whole person. Although there is much work still to be done with regard to reimbursement models and licensure, with interprofessional training and integrative teams working together, the pool of approximately 1 300 000 licensed clinicians practicing chiropractic, conventional biomedicine, naturopathy, osteopathy, and TAM in the United States could address the growing need for, and concern about, our nation's primary care practitioner shortage. And even more important, this could improve the health and well-being of both people and our shared planet.

Author Disclosure Statement

The authors declare no competing interests.

References

- Loomis FL, Evarts G. Loomis, MD: The father of holistic medicine. Integr Med Clin J. 2003;2(5):54-56.
- National Center for Health Statistics. Use of vital and health records in epidemiologic research: A report of the United States National Committee on Vital and Health Statistics. http://www.cdc.gov/nchs/data/series/sr_04/ sr04_007.pdf. Published March 1968. Accessed December 30, 2015.
- Fleming SA, Gutknecht NC. Naturopathy and the primary care practice. *Prim Care*. 2010;37(1):119-126.
- Green L, Savin S, Luy Y. Primary care physician shortages could be eliminated through the use of teams, nonphysicians, and electronic communications. *Health Aff.* 2013;32(1):11-19.
- Mannheimer E, Linde K, Lao L, Bouter LM, Berman BM. Meta-analysis: Acupuncture for osteoarthritis of the knee. Ann Intern Med. 2007;146(12):868-877.

- Vickers AJ, Cronin AM, Maschino AC, et al. Acupuncture for chronic pain: Individual patient data meta-analysis. Arch Intern Med. 2012;172(19):1444-1453.
- ACAOM Web site. Find a school. http://www.acaom.org/find-a-school/ default.aspx?state=All&dicipline=undefined&programtypes=All,MasterAccr edited,MasterCandiate,DAOMAccredited,DAOMCandidate. Accessed December 6, 2015.
- Hao J, Riley DS. Neural acupuncture. https://aihm.org/publications/journalclub/neural-acupuncture-integrating-neuroanatomy-with-traditional-asianmedicine/. AIHM Journal Club (ISSN 2380-0607). Used with permission. Accessed December 6, 2015.
- University of Maryland, Center for Integrative Medicine Web site. Our history. http://www.compmed.umm.edu/about_history.asp. Accessed December 6, 2015.
- Kligler B, Maizes V, Schachter S, Park CM, Gaudet T, et al. Core competencies in integrative medicine for medical school curricula: A proposal. Acad Med. 2004;79(6):521-531.
- Ring M, Brodsky M, Low Dog T, Sierpina V, Bailey M, Locke A, Kogan M, et al. Developing and implementing core competencies for integrative medicine fellowships. *Acad Med.* 2014;89(3):421-428.
- Riley, DS. Table adapted from By the numbers Licensed US healthcare professionals. https://aihm.org/publications/journal-club/by-the-numberslicensed-us-healthcare-workforce/. AIHM Journal Club (ISSN 2380-0607). Used with permission. Accessed December 6, 2015.
- Academy of Integrative Health and Medicine. Tieraona Low Dog. https:// aihm.org/fellowship/. Accessed December 6, 2015.