The Tower of Babel: Communication and Medicine

An Essay on Medical Education and Complementary-Alternative Medicine

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As society changes, medical education also must change.1

Complementary and alternative medicine (CAM) is constantly gaining in popularity.2-6 Despite its widespread use, valid concerns have been raised regarding the integration of CAM into the health care system.7 Certainly, the gap between allopathy and CAM is very substantive. It pertains to methodology and rigorous applications of scientific standards of evidence, among other issues, as well as to the meaning and context of illness and health. At present, it remains unclear (1) whether a true integration of conventional and unconventional therapies is even possible, (2) what this integration would look like, and (3) whether we are ready for the new era of medicine that would then result.8-10

The most commonly addressed aspects of CAM in the medical literature are its safety, efficacy, and legislation. These issues are discussed and presented in detail elsewhere.11,12 However, what very may well be one of the most difficult obstacles in the implementation of a true health integration is unfortunately rarely addressed: the lack of a common language among CAM providers and allopathic physicians. In this article, we use the Tower of Babel as a metaphor to advocate dialogue as a way to bridge that gap between these 2 camps. In doing so, we stress the important role of medical education in developing appropriate communication skills among all health care providers. Despite the fact that we often herein refer to a deficiency in CAM training for allopathic students, we strongly believe that this development should be a perfectly symmetrical reciprocal process, ie, that the depth and breadth of the training of CAM practitioners should be such that they would be able to speak the biomedical language.

The ability to communicate is the foundation of medical practice. When communication with patients is impossible, treatment is far from ideal. The same holds true with regard to communication among health care providers. Today, competent physicians are expected to have a knowledge base that extends well beyond specific diseases and disorders pertaining to their medical fields. The importance of communication is not merely for the purpose of dialogue: it is an essential requirement for the optimizing of treatment. Interdisciplinary medical discourse is therefore the “bread and butter” of practicing medicine.

It is that belief in broad-based knowledge that concerns us most when it applies to CAM. The present relative scarcity of thorough exposure of allopathic medical students to the diversity of CAM therapies and their fundamental concepts13 and of students of CAM to allopathy and its related sciences14 is far from ideal. This scarcity may result in a lack of understanding of all health systems and may create a risky situation in which future practitioners, allopathic and CAM alike, may not be optimally able to discuss in depth all legitimate evidence-based treatment options with their patients.

For most allopathic physicians, a genuine understanding of the underlying concepts and practices of CAM, such as acupuncture and homeopathy, is almost beyond achievement.15 This lack of understanding is not because physicians do not have the ability or willingness to un-
nderstand CAM, but because of a much simpler reason: the 2 do-
mains do not speak the same lan-
guage! The root of this discrep-
ancy, in our viewpoint, is directly
related to the entire process of med-
cal education of both conventional
and unconventional practitioners.

Studying pathophysiology, prin-
ciples and applications of epi-
demiology, pharmacology, molecu-
lar biology, and other disciplines that
are rich in concepts and methodol-
ogy throughout medical training is
basically possible because we as a
profession have succeeded in creat-
ing a common language, one that sci-
extically makes sense. Like train-
ees in many other professions,
allopathic medical students are re-
quired to learn both the “vocabulary”
(ie, medical terms) and the
“grammar” (ie, how to use these terms) of almost all biomedical dis-
ciplines. Indeed, going through
medical school is very much about
learning this new biomedical jar-
gon. If we are taught only 1 set of
vocabulary, communication is less
rich and therefore at times less
effective, and if we miss words, we of-
ten miss concepts.

How can we expect CAM and
allopathy to be integrated when
skilled practitioners in both camps
are only partially familiar with the
vocabulary and grammar of the
other? What do we allopathic prac-
titioners really know about Qi (the
Chinese term for vital energy)? The
widespread use of jargon that is pe-
culiar to particular CAM practices
can clearly act as an impediment to
constructive dialogue. Even so, we must
admit that the majority of us know very
little about the basic ideas of CAM. Likewise, what do CAM providers
really know about applied molecular
biology? Not much, we suspect.
In such a climate, communication
between both schools of thought is
almost impossible. Is this not a mod-
ern form of the Tower of Babel?

So, how can we overcome this
language obstacle in our long march
toward a full implementation of in-
tegrative medicine? The key an-
swer, in our opinion, lies in the
medical education paradigm. We be-
lieve that studying the “ABC lan-
guage” of the most common CAM
disciplines in medical schools, along
with the conventional curriculum,
will help to educate a new genera-
tion of physicians with a better abil-
ity to communicate with CAM pro-
viders. Such an “integrative curricu-
ulum” is fully justified when the
World Health Organization clas-
sifies 65% to 80% of the world’s
health care services as alternative
medicine. Indeed, in a recent sur-
vey, more than 80% of medical stu-
dents in the United States and the
United Kingdom stated that they
would like to have more training in
CAM practices.

A 1997 American Medical As-
sociation report on “encouraging
medical student education in com-
plementary health care practice” con-
cluded that “medical schools should
be free to design their own required
or elective experience related to
CAM.” A 1997-1998 survey of 117
US medical schools found that 64%
of offered an elective course in alterna-
tive medicine or included informa-
tion about alternative medicine in a
regular course. Topics included chi-
ropractic, acupuncture, homeopa-
thy, herbal therapies, and mind-
body techniques. Sixty-eight percent
of the courses were stand-alone
courses, whereas 31% were part of
a required course. In trying to de-
velop a more consistent educational
approach to CAM, Wetzel et al made the following suggestions: (1)
“Focus on critical thinking and criti-
cal reading of the literature”; (2)
“Identify thematic content . . . ”; (3)
“Include an experiential compo-
nent”; (4) “Promote a willingness to
communicate professionally with al-
terneative health care clinicians”; and
(5) “Teach students to talk to pa-
tients about alternative therapies.”
We strongly agree; therefore, we be-
lieve that CAM education should not
be regarded as an “optional dessert”
but rather as part of the “main
course.” For us, the crucial ques-
tion is not how many CAM modal-
ties will be covered in such a course, but will future physicians practice a
more human oriented healing? We
believe that a trial to study the im-
pact of changing medical education
toward healing using an integrative
curriculum is warranted before a
wide-scale application will be mer-
it. The Program in Integrative
Medicine at the University of Ari-
zona, Tucson (of which all authors
are part), pioneers this approach, and
its mission is changing medical edu-
cation.

Support of our proposition
comes from the recently published
“Suggested Curriculum Guidelines
on Complementary and Alternative
Medicine,” developed by the Soci-
ey of Teachers of Family Medicine
Group on Alternative Medicine. The
guidelines, to be included in resi-
dency training, indicate the knowl-
edge, skills, and attitudes that gradu-
ating residents should acquire to be
able to function as unbiased advoca-
cates and advisors to patients about
CAM. Using the authors’ own words
to communicate effectively with pa-
tients about alternative therapies re-
quires that our graduates have a rea-
sonable knowledge base in this area.

Providing medical students the
fundamental concepts of CAM will
hopeful contribute to our ability
to communicate on 3 different lev-
els. First, and most importantly,
these concepts might help make
physicians less biased, and there-
fore more able to objectively or ef-
effectively judge the appropriateness
of CAM therapies. Second, the phy-
sicians will also be knowledgeable
ever enough to impart the relevant
information regarding different CAM
modalities to their patients. Third,
having been exposed to different
models of medicine, they may serve
as a pool of future researchers, edu-
cators, and open-minded skeptics for
the vast body of research that is so
vital needed regarding CAM and
integrative medicine.

The establishment of evidence-
based CAM is highly dependent on
the proper allocation of resources,
In terms of professionals and funds,
by the medical community. Oppo-
nents of integrative medicine usu-
ally discount CAM, citing a lack of
scientific evidence. We believe that
the creation of a new generation of
CAM-educated physicians, with the
ability to speak the “CAM lan-
guage,” will give us an opportunity
to investigate what is actually be-
hind the scenes of these unconven-
tional forms of treatment. We wish
to see special CAM departments in
conventional medical schools that
will provide a rigorous atmosphere
wherein academic reward will be available, research facilities will be abundant, money to support such research will be duly allocated, and there will be no shortage of research expertise.25,26 Once this goal is accomplished, safety and efficacy can be more thoroughly addressed. Assuming that reorganizing this dimension of medical schools will take much time, we are calling for the ad hoc establishment of interdisciplinary (including both conventional and unconventional practitioners) forums of dialogue that can serve as a bridge for continuous medical education for the benefit of both patients and health providers. Because more and more scientists realize that domains of knowledge, and their application, are virtually infinite, there is now a strong metascientific call for interdisciplinarity, one that crosses boundaries of disciplines and institutions. A genuine need for interdisciplinarity is hence not unique to medicine. (For further discussion of this intriguing concept, the reader is kindly referred to an excellent article by Bugliarello.27) The widespread use of CAM makes dealing with different aspects of the integration of CAM and conventional therapies not solely the interest of CAM practitioners, but rather in everybody’s domain. Since patients who seek alternative medical treatments are not “alternative patients,” they have the right to be treated according to the same ethics and standard of treatment28 as those of conventional medicine. Unfortunately, even though at present we are far away from evidence-based complementary medicine, we must strive toward it.29-33 The perceived lack of hard data regarding CAM greatly limits our ability to provide our patients with enough information to make informed decisions. As a result, there are many misconceptions about CAM, misconceptions that leave both physicians and patients with a high degree of uncertainty.34 We truly do not know what the “gold standard” for care that applies to integrative approaches is. All we can do at present is to provide our patients with “informed skepticism.”35 Again, change in medical education seems a justified approach for improving our knowledge and practice.

A real breakthrough in CAM as a legitimate form of therapy can only occur when the 2 schools of thought learn a common language in which to communicate and consequently begin to truly collaborate. This new and unique dimension of the health care system, integrative medicine, can then bring current health care to new horizons.

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REFERENCES