

# Integration of complementary and alternative medicine in medical schools?

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*"A devotion to science, a saturation with its spirit, will give you that most precious of all faculties – a sane, cool reason which enables you to sift the true from the false in life and, at the same time, keeps you well in the van of progress".*

*William Osler. The Reserves of Life  
St. Mary's Hosp Gaz 1907;13:95-8*

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Complementary and alternative medicine (CAM) may be defined as "diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine" [1]. CAM comprises a confusingly large and heterogeneous array of techniques, with both therapeutic and diagnostic approaches [2].

The use and practice of CAM is a fact. The one-year prevalence of CAM use is impressive and varies among nations from 20 to 60% [3]. Hence, every practising physician will encounter patients who are using or asking for CAM. A recent survey among a random sample of primary care physicians in Switzerland revealed that 70% have used one of the six forms of CAM covered up to a few years ago by basic health insurance, namely anthroposophic medicine, homoeopathy, traditional Chinese medicine, neural therapy, herbal medicine or acupuncture. Hence there is little doubt that medical schools should incorporate knowledge of CAM concepts and therapies in their existing compulsory curriculum, thus ensuring that all students receive minimal exposure to these topics.

How is CAM currently taught in medical schools in Switzerland? In their survey, published in this issue, Nicolao et al. [4] found implementation of CAM in the curricula of the five medical faculties in Switzerland to be rather heterogeneous. CAM is offered as elective courses by institutional teachers in Berne and Zurich and by external teachers in Basel and Lausanne, whereas no CAM education is offered in Geneva. In an online survey among 640 sixth-year medical students the authors, surprisingly, found no relation between availability of CAM education and improvement of self-assessed knowledge of CAM, while CAM courses did not influence students' opinion of CAM significantly or motivate them to study CAM in more depth. The reported response rate (38.8%) being rather low, and students with a

critical stance on CAM being less likely to participate in the inquiry, the findings must be interpreted with caution. Nevertheless, the fact remains that the current situation in our universities, with CAM courses offered as elective and often taught by persons lacking a professional scientific background, is unsatisfactory and should not be tolerated.

It should be born in mind that almost all progress in health care with major implications for our patients' quality of life and life expectancy has derived from progress in science. To cite a few examples: the treatment of bacterial pneumonia and tuberculosis by antibiotics, the measures of hygiene and the development of vaccines against the scourge of infection, nucleoside analogues to stave off the onset of AIDS in patients with HIV infection, surgical repair of heart valves, and so on. In what fields is CAM advancing? Let us consider, for instance, homoeopathy, a system with a history of over two hundred years for the treatment of illnesses based on the premise that like cures like. Hundreds of trials have failed to deliver convincing evidence that its results are more than placebo effects [5]. Nonetheless, its practitioners continue to claim real effects, advancing strange theories to explain them. We must confess, of course, that many treatments used in conventional medicine have not been rigorously tested either. However, the scientific community generally acknowledges that this is a failing needing to be remedied. In contrast, many advocates of CAM believe that scientific methods are simply not applicable to their methods and remedies. Instead, they rely on anecdotal evidence, theories and ideologies that largely ignore sound biological mechanisms. Modern universities, on the other hand, are committed to the spirit of rational scepticism which acknowledges ignorance and stipulates that any theory should be potentially disprovable [6-12].

The ultimate goal of our medical schools is to teach "one" medicine [13]. If CAM procedures are scientifically sound they should become an in-

tegral part of conventional, i.e. rational and scientific medicine. CAM should be integrated into existing compulsory courses, since offering only elective courses tends to marginalise it. Students should become familiar with the CAM therapies most commonly used by Swiss patients, and courses should be utilised to scrutinise methods of studies, to foster a critical dialogue, to understand epidemiology and the reasons why patients resort to various CAM methods, and to discuss the placebo effect. At the same time, medical faculties should bar uncritical enthusiasts from teaching methods whose effectiveness – apart

from a mere placebo effect – has not been rigorously tested by scientific methods.

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