

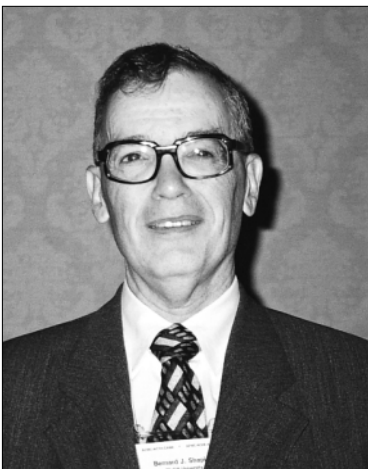


Features

Chroniques

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Bernard Shapiro: doctors will have to share their “priestly” function

Time to “rethink models of medical education,” ACMC meeting told

Nancy Robb

En bref

LES MÉDECINS QUI ONT PARTICIPÉ À LA RÉCENTE ASSEMBLÉE ANNUELLE de l'Association des facultés de médecine du Canada en ont tiré beaucoup de matière à réflexion. Ils ont appris que les changements en cours dans les hôpitaux vont beaucoup plus loin que les édifices neufs ou les technologies nouvelles : le défi réel consiste à revoir le rôle des hôpitaux dans la société.

Faculties of medicine must play a lead role in guiding the changes sweeping the health care system, says the principal and vice-chancellor of McGill University.

During the recent annual meeting of the Association of Canadian Medical Colleges (ACMC), Association of Canadian Teaching Hospitals and Canadian Association for Medical Education in Halifax, Bernard Shapiro urged medical educators to help chart the course of Canada's health care institutions.

“In an environment of rapid change, nothing fails like success,” he pointed out. “The very success of academic health centres and the health system [has] predisposed those most able to move us forward into the future to often be those least inclined to do so.”

He said faculties of medicine should prepare to relinquish some power in the process and “rethink models of medical education” to embrace allied health sciences. “The priestly function of the physician is to be shared by others on the health care team.”

That reality is reflected in the transformation of Canada's hospitals. “It has become increasingly clear that the restructuring of the hospital network is not a question of size or simply building a new facility or acquiring new technology or saving money,” said Shapiro. “The real challenge is to engage in a major re-vision of the role of hospitals in society.”

He said the first step is to rethink the role of hospitals, including tertiary care centres. They should be considered “not as the sole object of the instruction process but rather as a significant component of the public health care network” that will guide the continuity of care as patients move through the system.

“It is possible that . . . academic health centres will have to accept that responsibility and will need a far more robust communications system travelling with the individual receiving care. I don't think the public is going to put up with the incapacity of the profession to talk to each other.”

He said hospitals will also have an obligation to help patients readjust after treatment — a function that requires a commitment to specialties like occupational or rehabilitation medicine. “This is where the health profession can really lead by helping people like me understand that the system isn't simply composed of acute care hospitals and general practitioners,” he said.

But continuity of care doesn't stop there. It also involves following patients through their life cycle and engaging multidisciplinary teams of health professionals. Tertiary care centres, Shapiro predicted, will benefit from “this synergy” of ideas.

“At the centre of this is the faculty of medicine. Universities . . . should be able to extend their expertise to continuing professional and community education. Most important, members of faculty should be responsible for developing the health care



outcomes research that will assure the methodology applied in tertiary care centres is efficacious and cost-effective."

Shapiro called for "a fierce determination" to develop curricula that serve the faculty at large, not just certain individuals. He said this is crucial given the public's mounting suspicion of the medical profession. "In this context of cynicism, academic health centres are particularly vulnerable, ironically at the very moment they are most needed."

Shapiro blamed that vulnerability on regionalization and the consequent decentralization and watering down of quality health services. "If academic health centres are to stand for anything, it must be a standard of quality that

is always rising . . ." He urged educators to advocate "a steep hierarchy of health care institutions . . . that will allow the great institutions of teaching, research and care to actually merge.

"Is this a call for elitism in medical education? I certainly hope so. After all, health care, research and education should be seen as great moral vocations, since each have an impact not only on the mind and body but also character."

The road ahead won't be smooth. "You will be the single most important participant in a conversation, the end of which you will not control," he told the audience. "How to do that is the secret; how to commit to that is the real challenge." ?

Medicine just beginning to tap potential of virtual reality

"What we're talking about now seems a little far-fetched," Dr. David Kaufman told a workshop of medical educators during the recent ACMC annual meeting in Halifax, "but it won't be in a few years."

Kaufman, an associate professor of medical education at Dalhousie University, was speaking about virtual reality (VR), which he said has the potential to improve doctors' confidence and competence in performing procedures.

He has been overseeing the development of virtual-reality software in partnership with a Dartmouth, NS, company, Digital Image FX. Their aim is to devise teaching tools that will help produce better doctors.

The company and the medical school are now programming a "whole learning system" on prostate cancer that includes CD-ROMs with cases and tactile-feedback simulations that employ a \$50 000 device called The Phantom. "Virtual reality is a computer-generated, 3-dimensional simulation that requires interaction and immersion, the key word being immersion," Kaufman explained.

Devices such as head-mounted displays allow users to experience 3-dimensional simulations, but CD-ROMs don't make the grade when it comes to giving medical students, residents and even physicians the practice they need to master procedural skills. "That is what The Phantom will let us do," he said.

Kaufman said The Phantom, a mechanical arm that enables users to interact with the computer by placing their finger in a thimble, provides "a sense of touch as they're feeling a 3-D terrain" and "immediate correction and reinforcement."

Workshop participants agreed that residents, who rarely have enough opportunity to do procedures, as well as "rusty" physicians, would benefit from repeated trial runs on high-tech guinea pigs. So would their patients. "We know things have to be practised a lot to reach mastery and then that mastery has to be maintained," Kaufman said.

Participants also pointed out that virtual reality would be useful in teaching procedures involved in breast and genitalia exams, in which it is difficult to find subjects. Dr. David Fleiszer, assistant dean of medical informatics at McGill University, said only 30% of medical students get to see a breast puncture and drain, and only 10% get to perform one.

Kaufman believes virtual reality has a place in surgery, emergency medicine and other specialties. But "does it make any difference when you get to the real thing?" he asked.

He said airline pilots have the same biologic responses when they practise on aircraft simulators as when they fly. Indeed, pilots have to be certified in flight simulation before they can fly commercially.

But Kaufman said that kind of research has yet to be done in medicine, though initial studies in the US show promising results. Virtual reality in medical education is still largely in the research-and-development phase, with some gains being made in areas such as laparoscopy and angioplasty.

He said VR promises savings in several areas, including malpractice insurance. "Some procedures need to be practised a good 20 to 30 times before you reach an acceptable level of mastery," he said, noting that American insurance companies have expressed interest in the technology. "There's no other way to do that except with VR. Otherwise, God help the first 20 patients you're practising on."

He thinks VR can save money and improve testing in examinations that assess manual skills. "One of the hopes is that with VR you can give many different simulations. Over the whole test, you can get a reliable and valid assessment."

So why isn't VR an easy sell? "A big obstacle," said Kaufman, "is getting people to actually open up their minds to the possibilities."