EDITORIAL

CHALLENGES IN HEALTH SCIENCE EDUCATION

The world and South Africa are undergoing momentous changes politically, socially and economically. All these changes pose enormous challenges to the health science community. Students in this field are exposed to a veritable explosion of knowledge such as the world has never seen before. It has been stated that the pool of knowledge in the health sciences doubles every 5 to 7 years. Unfortunately, the half-life of the knowledge that we acquire during our training is also about 5 to 7 years. It is this explosion in knowledge, together with a number of other factors, that has led to a need for us to re-visit our current views on health science education.

In a thought-provoking paper in the 1992 *BMJ*, Stella Lowry posed the question: 'What is wrong with medical education in Britain?' She went on to ask, 'What leads to the transformation of eager, motivated school leavers into narrow-minded disillusioned medical graduates?' Similarly, health science educators in the USA have expressed the need for fundamental reform, and there is a pervasive perception that all is not well in health science education.[2] This stems in part from the growing recognition that in spite of remarkable technological advances in modern health care, there has been little impact on the global burden of disease. It was this realisation that led to the movement in the 1970s that culminated in the Declaration of Alma-Ata in 1978 identifying primary health care as the key to a state of well-being that leads to a socially and economically productive life for all. The emerging dis-ease with prevailing health science education programmes also stems from dramatic changes in society, such as the ageing of populations, the epidemiological transition, changing cultural values and a changing global economy. The general environment in which health care is practised is therefore changing. Concurrently, the health care environment itself is undergoing rapid change. There is an increasing focus on health rather than disease, greater attention is being given to the risk factors for disease in both the physical and the social environment, decision-making will become more and more information-driven, and patients are becoming more actively informed participants in their own health care. In future health care will be provided more by health care teams, the benefits of technological advancement will increasingly be balanced against its effects on society's value system, more emphasis will be placed on the interpersonal aspects of health care, health professionals will be held more accountable to communities, and there will be an increasing concern about the costs of health care, which is becoming unaffordable even in rich countries.[2]

It is in this very different health care environment that many new graduates will be spending their professional lives. Clearly, the skills that will be required in the future are different from those required of graduates in the past. But what are these new skills? The Pew Health Professions Commission identified 17 competencies that health carers will need in the future. These include care for the health of communities, expanding the access to effective care, providing contemporary clinical care, emphasising primary (health) care, participating in co-ordinated care, ensuring cost-effective and appropriate care, practising prevention, involving patients and families in the decision-making process, promoting healthy lifestyles, assessing and using technology appropriately, improving the health care system, managing information, understanding the role of the physical environment, providing counselling on ethical issues, accommodating expanded accountability, participating in a racially and culturally diverse society, and continuing to learn.

While these competencies relate to the USA, most of them are also applicable to the South African situation. However, it is unlikely that health science students will be sufficiently competent to cope with these anticipated societal changes without the restructuring of current curricula. Unfortunately, curriculum reform has met with stiff opposition. Part of the opposition stems from the misperception that socially relevant training is lacking in excellence. This is a perception that needs to be laid to rest. In my view, we need to develop undergraduate and postgraduate training programmes of excellent relevance. We need to build on the high standards of training and care that are currently being provided in teaching hospitals by developing excellent community-orientated, problem-based training programmes that will enable our graduates to cope with the new demands that will be placed on them in our rapidly changing world.

In a changing South Africa in which tertiary educational institutions will be held accountable to the people in increasing measure, health science educators need to mount a response. It is pleasing to note that the health sciences faculties in South Africa have indeed responded, with the mission statements of most of the faculties reflecting a commitment to excellent, relevant, responsive health science education. However, it is in the implementation of this vision that the real challenge lies. The continued importance of tertiary care is recognised, but there is a dire need to develop both primary curative care and primary health care, so some tough choices lie ahead. Do we have the courage to make those choices, not in order to please our new political masters, but out of a conviction that they are the right choices to make? Do we wait until those choices are made for us? These are difficult questions, coming as they do at a time of political transition when health science curricula are overloaded, when the economy is not as healthy as expected, when the government's macro-economic policy is leading to cuts in social spending, and when expectations both within

South Africa and elsewhere on the African continent are raised. All this can so easily lead to a sense of despair.

But these are also exciting times. Societal changes that were unthinkable a few years ago have become the norm. The challenges we face afford us a unique opportunity of making an impact on the history of health science education in our country in a direct and meaningful way. Considering the commitment, hard work, enthusiasm and intelligence of the academic community, the renewal of health science education can become a reality. The future of health science education in South Africa and beyond will be determined by our collective response to the challenges of our time.

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1. Lowry S. What is wrong with medical education in Britain? *BMJ* 1992; **305:** 1277-1280.
2. O'Neill EH. Education as part of the health care solution. *JAMA* 1992; **268:** 1146-1148.