A 50-year Odyssey in Medical Education

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Abstract

The author has spent 50 years in medical education as student, teacher, educator, academic and manager. Now in his anecdotage, he explores the past five decades, the influences upon him, what he made of them and what decisions he took; some of it based on evidence but much made up as he went along.

Keywords: undergraduate, postgraduate, curriculum, medical school

Introduction

Fifty years ago I was a third year medical student meetings patients for the first time. This gives me reason to reflect on 50 years of change in medical education which I do, not primarily as a researcher, but progressively as a student, junior doctor, hospital consultant and teacher and, for the past 20 years, as one responsible for curriculum design and delivery of undergraduate medical courses.

I have been therefore a consumer of the product; as a doctor uses the insights of biomedical research to manage patients, recognising that the evidence will only get him or her so far, so as an educator I have used the insights of medical education research, adapting them to circumstances as best as I can. But, just as in medical practice patients have taught me far more than journals or books, so as an educator I have learned most from my students.

The ‘60s

My undergraduate medical education in the English Midlands was the traditional 5-year course divided quite rigidly into 2 years pre-clinical and 3 years clinical, a pattern unchanged for many years and certainly since my father qualified in the same institution 30 years before.

For those who remember them (and if you do remember them, then, as they say, you weren't there), the ‘60s were a
time of change. In 1968, revolution was in the air, students were tearing up the paving stones in Paris. In the UK things were naturally more sedate, becoming generally no more violent than sit-ins in Vice-Chancellors’ offices. My medical school, as its contribution to change, instituted a staff-student committee of which I was a member though I can’t now remember what we discussed.

There were a number of aspects of my undergraduate education which influenced my thinking when I became more responsible for the product. Among these were the ideas that anatomical dissection was an over-rated activity, attendance at lectures often of limited value and physiological experiments of little relevance to the care of patients.

More positive was realising that learning clinical medicine is essentially experiential. Formal teaching was limited anyway and largely irrelevant compared with that provided by patients. And there was no shortage of those. I spent much time haunting the Accident and Emergency Department in the city centre where the afflicted from a large industrial conurbation would roll in day and night. I have often tried to persuade students and staff of the importance of this kind of learning but sometimes with indifferent results.

Communications skills teaching needs a mention. I remember one afternoon session which I think was all there was. Even then this seemed to me somewhat inadequate. Of ethics teaching I remember nothing apart from a lecture on the role of the General Medical Council and the defence organisations. I’m not sure that this defect mattered as much as modern opinion would claim. I have not felt bereft and the charge that one cannot practice ethically without formal teaching must be as untrue for this as most other parts of the course. Although not aware of the concept, the hidden curriculum was alive and active and served us well in this as in much else.

The '70s

Fairly early in my career I was appointed to a lecturer post at a medical school in southern Africa, a school supported by my alma mater. The job was what it said on the tin; there were a lot of lectures to prepare and deliver. Lectures may have but a modest effect on the audience but they do promote learning in the neophyte lecturer of both content and style. I never subsequently had any problem in getting up on my hind legs and talking.

I learnt a lot at this time but three episodes stand out. The first was an extensive 3rd year introductory clinical course which built upon normal structure and function so that the patient story and the physical findings could be understood in terms of students’ previous learning. I helped design and run many similar courses in subsequent decades but they all had a foundation in the one in Africa.

The second arose from a problem in the pathology department. Due to various vicissitudes the department was reduced to one member of staff who also had to do all the surgical reporting for the hospital. Teaching was at a minimum. It did not seem to make much difference to the students who read the books, looked at the specimens and passed the examinations as well as before. It seemed as if the role of the teacher was less important that I had presumed and that bright students given clear instructions and access to learning materials would get there without much additional help. I subsequently learned that there was an important exception to this which I will come to. Later still I understood that what I had observed in these students was an example the working out of ‘constructive alignment’.

The third was attendance on a short course on teaching methods. I think this was the first time I had realised that there was a discipline ‘out there’ which could be used to improve the student experience and lead to better doctors. Such a course would now be routine but I still find it remarkable that this was available in Africa in the 1970s.
The '80s

Back in the UK, as a hospital consultant, I had undergraduate and postgraduate teaching responsibilities; the former at the Leicester Medical School. A key moment in my understanding of undergraduate clinical education was that of a few minutes’ conversation with a student. She said ‘what I need from you is half-an-hour a week of observation and feedback on my performance with patients. I can do everything else myself, I can read the books, go to clinics and ward rounds and see patients on my own but if I don’t have that half hour *I don’t know if I’m doing it right*’.

This was a damascene moment; it was suddenly clear that students, however bright, could not learn good consultation skills, including problem-solving skills without guidance on their performance. Observation of others was not enough. Further, if teachers did nothing else but this, students would flourish; other teaching modalities were no doubt desirable but only if students got their 30 minutes each week. Since then I have tried to organise curriculum matters so that patient, student and teacher would come together with the teacher observing the student, not the other way around.

As a result, my enthusiasm for ‘protected time for teaching’ for postgraduate doctors faded. It looks administratively tidy to organise professional time into separate ‘service’ and ‘training’ sessions but this is to remove the teaching from the patient so observation and feedback is lost.

The '90s

In the early 1990s two things happened. I had the opportunity to play a leadership role in either postgraduate or undergraduate education and the first edition of *Tomorrow's Doctors* was published by the General Medical Council (GMC). I chose to concentrate on undergraduate education. Postgraduate education even then seemed to be becoming a process where the agenda was set elsewhere and was too dependent on the immediate needs of the health service for trained doctors rather than being an educational process directed at developing individuals. Undergraduate education seemed to offer more scope for innovation.

The first edition of *Tomorrow's Doctors* was a seminal event for many, including myself. It was as others have described, a manifesto, a call for a new approach with a reduction in material that ‘taxed the memory but not the intellect’ and more freedom for students to plan and direct their own learning. It brought many new ideas in medical education to a wide audience and for the first time the GMC seemed to be prepared to use its powers to promote change.

My colleagues and I therefore had a requirement to reorganise the delivery of undergraduate medical education in Leicester in conformity with the ideas in *Tomorrow’s Doctors*. That meant a more integrated course around patient problems, a more centralised management structure, clearer learning objectives, more opportunity for self-directed learning particularly through Special Study Modules and a review of assessment procedures. It also meant a crash course on managing change.

This change needed much skill and involved some pain. For example, academics who were used to teaching their subject in their own way based on their own expertise and setting the standards that they thought were appropriate, became discomforted by a process which asked them to teach what someone else had decided, using methods derived from elsewhere and where the standards were set by collating opinion from a range of people, most of whom had no particular expertise in their subject.
If a course was to be more focussed on patient problems, their interpretation and their management then this naturally needed more engagement by students seeing patients under supervision. But coincident with these ideas was the increasing political imperative to deliver more patient care more efficiently. The health service environment has never been particularly educationally friendly and this shift, done with the best of intentions, was not always easily achieved and remains a significant problem to this day.

Nevertheless, it became clear to me that the ideas around clinical competencies and outcomes-based curricula combined with earlier insights about how students learn could be used to make the most of the clinical experience. First this meant making clear to students what they needed to know and to be able to do; they would then do most of it for themselves. So we prepared a series of outcome-based statements setting out what students should be able to do in a wide variety of common, or uncommon but important clinical situations. These expressed the knowledge and skills that students should be able to display at the end of the course so they were written to express a level of competence appropriate for a new graduate. They were at sufficient level of granularity that students would know what they had to do largely without further instruction.

This then allowed the clinical teaching staff, and the resources behind them, to concentrate on that which they did best and which students were unable to do for themselves; developing the consultation skills, including clinical reasoning skills, with a wide variety of patients and clinical scenarios by means of observation and feedback on performance.

Encouraged by Tomorrow’s Doctors we attempted to remove as much of the specialty focus to clinical component of the course as possible. Guided by the outcome statements, students would, through immersion in a variety of long-term attachments, be able to manage their own learning because they would know what to obtain from each clinical setting. These long-term attachments, although reducing the chance of every student to be exposed to every specialty, would foster the development of professional attitudes. The results were mixed; able students thrived but less able ones felt lost and so later more structure was put back. This experience may have resonance with other programmes with long, non-specialised attachments.

It was clear early on that curriculum reform would involve change to the assessment. At that time UK schools were just beginning to move away from a longcase/short case framework to the OSCE. The typical OSCE was then about 20 stations each of 5 minutes. The local surgeons and primary care physicians, in a rare moment of accord, declared against the OSCE and both for the same reason; that the format could not examine the consultation as a whole. We therefore developed a modified OSLER (Objective Structured Long Examination Record) based on a primary care postgraduate model mostly using real patients. Of course such a model, to have reasonable reliability and validity, would need to be longer with consequences for feasibility. We therefore, from the experience of a Canadian postgraduate model, created a sequential examination so that many candidates could be judged satisfactory on a smaller number of cases. This put the limited resource mainly where it would identify a minimum level of competence.

The ‘00s

The new millennium soon saw me moving to help set up a completely new UK medical school at Hull York. This was to be a problem-based school with up to 50% of the teaching in primary care. It was a marvellous opportunity to put into practice innovative ideas current in medical education. So for example the PBL sessions were conceived as being based in primary care with the facilitator as the senior partner. Several ‘patients’ would attend each week and the flexibility this provided made it easier to cover the outcomes. Early patient contact was used to link ‘real’
patients with the PBL cases week by week. The curriculum was 'spiral' and system-based. Clinical placements were long-term and simultaneously to hospital and primary care. The assessment framework utilised MCQs, EMQs and Modified Essay Questions for written papers. Clinical examinations used the OSCE and a modified OSLER framework. The latter used real patients from the second year onwards seeking a progressive increase in breadth and depth of understanding and competence. Later in the decade the curriculum framework was utilised to help set up the first medical school in Botswana in southern Africa.

The schools in these two countries faced problems of articulation with both their university (two at Hull York) and the health services of the country. The problems were surprisingly similar. It seemed that universities might like the idea of a medical school but not always the reality; much of the curriculum would be set from outside, with a regulator to oversee it, the clinical staff would be paid much more than other academics but mostly worked elsewhere and the greater part of the teaching would take place and be funded outside the institution. The health services, although welcoming the prospect of new doctors, were heavily focussed on service to patients. For many prospective clinical teachers, their knowledge of medical education would be dated from their own experiences, perhaps 30 years previously.

These leadership and delivery issues were crucial in both schools but I found the medical education literature relatively unhelpful in resolving the tensions.

The '10s

What about the next 50 years? Well, as they say, prediction is difficult particularly about the future. Nevertheless, it seems to me that scholarship in medical education will need to become increasingly politicised if it to remain effective. Politics is the art of the possible. Most of what we do in medical education is not the best but, hopefully, the best possible. Both undergraduate and postgraduate medical education exist somewhat uncomfortably between the worlds of universities and health services; the former interested, at least historically, in the education of the person and the latter in training for a task. Just as health services have had to increase efficiency to avoid implosion so medical education (probably the most expensive education) will need to do the same. To navigate a possible course between these various rocks and whirlpools will, I predict, keep my successors well occupied in the coming years.

Take Home Messages

Notes On Contributors

Professor John Cookson is an Emeritus Professor at Hull York Medical School where he was previously Foundation Professor of Medical Education and Undergraduate Dean.

Acknowledgements
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Appendices

Declarations

The author has declared that there are no conflicts of interest.

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