J R Coll Physicians Edinb 2015; 45: 186–7
http://dx.doi.org/10.4997/JRCPE.2015.301

CLINICAL

Bedside matters – putting the patient at the centre of teaching and learning

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KEYWORDS bedside teaching, clinical teaching, medical education

DECLARATION OF INTERESTS No conflict of interests declared

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> He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all.
>
> *William Osler*

There was a time, and not so long ago, when our students were taught medicine by clinicians at the bedside of the patients for whom those clinicians cared. But just as the practice of medicine has changed since Osler wrote his words, so too has the way it is taught and learned.

Bedside teaching has declined on both sides of the Atlantic.[1] Medical students spend fewer hours in contact with patients, in part because of increasing class sizes and in part because in-patient stays are generally shorter and in-patients generally sicker, older and frailer.

Academic staff, once the fulcrum on which bedside teaching rested, no longer build careers and reputations on clinical teaching expertise. They are judged on their ability to compose successful grant applications and publish high impact papers – both skilled and time-consuming activities in themselves – but for many in such positions, teaching now comes a distant second place. Those spared such academic burdens and employed on clinical contracts find themselves working in increasingly intense and time-pressured environments, with a consequent decline in the time available to deliver teaching of any sort. As hospitals adopt efficiencies from manufacturing such as 'lean' (creating more value for customers with fewer resources), teaching time can be fragmented or even sacrificed in the interest of throughput. At the extreme, the missions of the medical school and the hospitals in which its students are based become fractured and in competition, rather than in synergy. Technology contributes, with increasingly voluminous patient data now housed on desktop computers removed from the patient. Furthermore, teaching is increasingly seen as something that one must be specifically trained to do, that must have designated learning outcomes, be timetabled, standardised, structured, governed and, of course, be 'bleep-free'. Although such requirements can undoubtedly support the creation and delivery of high quality learning experiences for students, their detrimental consequences must also be acknowledged. Specifically, opportunistic bedside teaching by doctors who regard themselves as clinicians first and teachers second declines, and the activity moves away from the ward, the clinic and the patient.

Aside from the problems of bedside teaching, other changes in medical education have intensified the 'dehumanisation' of our teaching and eroded our students' exposure to the real human body and real experience of illness. Dissection of the human corpse has declined dramatically; attendance at a post-mortem is an extraordinary experience. Procedures are learned on manikins. Communication skills are practised with simulated patients, in simulated consultations. Clinical teaching takes place in lecture halls or tutorial rooms and focuses on radiological images, laboratory results, prescription charts, fictitious case scenarios, or recent journal articles – in fact almost anything other than the patient and almost anywhere other than where the patient is. We seem to teach our students more about the genotype of their patients, but less of their phenotype.

Some might argue that little is lost: we would disagree. Thinking back to our own experiences of bedside teaching – shared at the same time, but on different continents – we believe we learned much.

We learned how an experienced doctor relates to and communicates with a patient. What works, and what does not, in history taking. We learned how to pitch explanations to each patient's own specific level of understanding. We learned the principles of casework: how to gather information from the history and physical examination, systematically and carefully. We learned how to think on our feet, to synthesise what we had

found into a list of possible explanations, a differential diagnosis. In short, we learned the nuts and bolts of clinical reasoning and judgement. We heard and saw, close up, the impact of disease on a human being. We learned surface anatomy that helped in our understanding of procedures in later years. And applied physiology – what happens to the central venous pressure when one breathes in? We maybe even learned something about compassion and empathy.

The vehicle that drove our teachers to the bedside was primarily the desire to teach the physical examination. But the progressive devaluation of the diagnostic currency of the physical examination has brought a further reduction in time spent teaching it. Assessment strategies may also have had an impact – in the USA the absence of a high stakes assessment of bedside skills in postgraduate medical education creates little incentive to teach by the bedside following graduation; in the UK the retention of such an assessment (PACES) has arguably lessened the clear decline in physical examination skills witnessed in the USA and provides a basic framework for the teaching and learning of clinical skills at postgraduate level. These would be hollow complaints were it not for the fact that the decline in such skills results in a kind of medical error which we all recognise: where an obvious diagnosis, a 'low-hanging fruit' such as shingles in a patient with chest pain, or an incarcerated hernia in an elderly patient with vomiting, is overlooked and the patient sent for unnecessary diagnostic procedures.

But tides are turning.

First, on both sides of the Atlantic, the problems of over-investigation, over-treatment and over-reliance on technology in clinical decision-making are now recognised. It has become clear that we can have 'Too Much Medicine'.[2] The time is now right for re-evaluation of clinical assessment, dissemination of evidence of the real contribution of history and examination to diagnosis,[3] and promotion of a renaissance of the teaching and assessment of these skills.

Second, educational models that focus on apprenticeship, learning in context and empowerment of the learner are emerging. Our students remain as bright, gifted and enthusiastic as they ever were and, raised with technology as an intimate companion in all they do, are perhaps more likely to appreciate its limitations than blindly accept its demands. Students appreciate patient contact, value bedside teaching[4] and can even deliver it in peer-to-peer sessions when adequately supported.[5] Established clinicians may also need support to develop confidence in their own bedside teaching skills and to find the time to deliver it in hectic clinical environments – the Stanford 5M[2] provides one such model.[6]

Finally, there are our patients. When asked, they understand the value of their personal involvement in bedside teaching[7] and wish to support it. They also understand the place of bedside clinical assessment in their care and can help doctors to rediscover the value of the bond that such assessment can provide.[8] In an era in which we talk more and more of patient-centred care, we need to talk more of patient-centred teaching and ensure that more of our future doctors spend more time at the bedside.

It is, after all, where the patient is.

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