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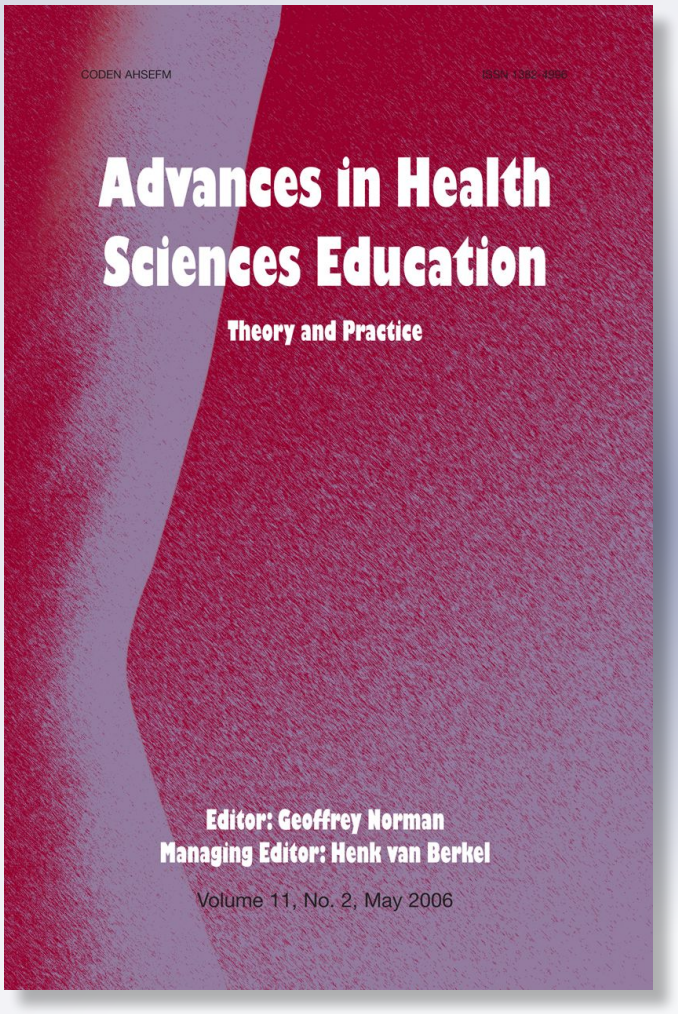

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REFLECTIONS

Has bedside teaching had its day?

Zeshan Qureshi · Simon Maxwell

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Abstract Though a diverse array of teaching methods is now available, bedside teaching is arguably the most favoured. Students like it because it is patient-centred, and it includes a high proportion of relevant skills. It is on the decline, coinciding with declining clinical skills of junior doctors. Several factors might account for this: busier hospitals, broader roles of clinicians, competing teaching modalities, and the limited training of clinicians as medical educators. However, bedside teaching offers unique benefits. Students gain first-hand experience of the doctor patient relationship. They see the process of interacting with patients, investigative yet sensitive, demystified. Certain clinical skills, like the recognition of the tactile sensation of hepatosplenomegaly cannot be simulated elsewhere. We advocate the preservation of bedside learning experience. Teaching guidelines should be written to minimise disruption to ward work, and to ensure the preservation of patient autonomy. Greater emphasis should be placed on bedside skills in the undergraduate curriculum. For teachers, training in teaching methodology should begin at undergraduate level, with subsequent protected teaching time in job plans. This would increase not just the quantity, but also the quality of bedside teaching.

Keywords Bedside teaching · Undergraduate · Clinical skills · Assessment · Small group teaching

Medical students are now exposed to a diverse array of teaching methods as they develop the knowledge and skills that are required outcomes of the undergraduate curriculum (GMC 2009). These include traditional lectures, small group tutorials, e-Learning packages

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and bedside teaching. All have advantages but bedside teaching is arguably the method that is most favoured, most in demand but also least well delivered. Students like bedside teaching because it is patient-centred, puts knowledge in context, includes a high proportion of relevant skills and provides direct contact with and observation of experienced practitioners.

However, there is evidence that all is not well. Fifty years ago, three quarters of clinical teaching was at the bedside (Reichsman et al. 1964), but this has significantly declined since. By 2009, one estimate suggested 17% of teaching was at the bedside, with 38% of this being the teaching of physical examination (Crumlish et al. 2009). This reduced exposure in undergraduate years to a critical aspect of training may be responsible, in part, for the declining clinical skills of junior doctors (Alam et al. 2010). This trend will have to be reversed if medical schools are to fully deliver on the outcomes for medical graduates identified in the UK, and elsewhere (GMC 2009). If progress is to be made we must understand the reasons for the decline and explore ways of overcoming the impediments and improving quality. We must ask what is the purpose of bedside teaching for the modern graduate and whether other approaches, such as simulation, might be a more effective and practical alternative way of developing the necessary skills.

The progressive decline of bedside teaching is the consequence of several factors. Hospitals are busier with significantly increased patient throughput. The potential availability of teachers is reduced as well as the availability of patients, who spend less time in hospital and have a generally 'busier' in-patient stay. Teachers, despite an interest in bedside teaching, now find themselves with broader roles in the hospital. They are required to see more patients, and to find time for increasing amounts of paperwork. Teachers themselves may also feel under-prepared for teaching students who have a radically different undergraduate course to the ones they experienced. Junior staff may have a better grasp of the new style curricula but have fewer hours to contribute following recent working time directives.

There may also be a perception that the bedside teaching, as it was formerly practiced, is intruding or demeaning to patients. This may be the case if bedside teaching is ill thought out, or done hastily but is avoided if patients are made aware of teaching sessions occurring, and are properly consented. Indeed, the majority of patients enjoy being part of bedside teaching (Simons et al. 1989; Wang-Cheng et al. 1989); it can increase understanding of their disease, and allow them to feel that they are making an important contribution to the healthcare process.

There may also be some more subtle but nonetheless important changes. There may be a less overt acceptance for the prolonged presence of larger numbers of medical students in a busy clinical environment, both by staff and patients. There has also been a drift away from the apprenticeship model of undergraduate medical education as clinical attachments have got shorter, medical student numbers have increased and 'consultant firms' have become 'clinical teams'. Clinicians may feel less inclined to invest precious time in students who are only a transient presence on their wards. Bedside teaching is also in competition with other learning opportunities that are easier to plan including rapidly developing clinical simulation techniques, often as part of clinical skills centres. Significantly, there has also been a paradigm shift in the way medicine is practiced: clinical diagnosis is increasingly depending on more sophisticated investigations rather than traditional clinical examination skills fostered at the bedside.

There seems no sense that the enthusiasm for bedside teaching has diminished amongst either students or trainers (Nair et al. 1998). It seems that through a series of changes in

both the health service and medical education this component of the curriculum has been squeezed. So what is the true purpose of bedside teaching in the modern era?

Bedside teaching offers unique benefits. Students gain first-hand experience of the doctor-patient relationship. 'Patient-centred' care is directly observed and learned. The student experiences not just how to assess disease, but beyond this, how to personally and professionally address the human impact of illness.

The process of interacting with patients slowly becomes demystified. Bedside teaching facilitates students to become increasingly confident speaking to, and examining real patients, with the reassurance of a more experienced practitioner at hand. Bedside teaching also opens the mind to the reality of clinical medicine that perhaps cannot be mimicked with an actor. It often takes time to sensitively, and accurately get a thorough history from a patient. The balance of being efficient with time, yet establishing a rapport with patients can be learned. Although some clinical signs and experiences can be simulated, many cannot (e.g. the tactile experience of hepatosplenomegaly or joint effusions). Nor can the unfortunate reality of assessing patients with the distraction of a busy clinical environment at hand!

If it is accepted that bedside teaching is both important and underrepresented in medical education, what can be done to improve matters? We advocate the following guidelines as a means of preserving the bedside learning experience:

- Teaching guidelines should be written to minimise disruption to ward work, and to ensure preservation of patient autonomy. If this is devised in conjunction with both ward staff, and patient advocacy groups, bedside teaching could become more normalised and accepted in the clinical environment.
- Communication should be improved by using web based forums, hosted by the relevant medical school, to organise teaching, as has been done with prescribing tutorials in South East Scotland (Rodrigues et al. 2009). Rapid exchange of information in this arena caters for the often unpredictable clinical timetables for both medical students and doctors. Further, doctors that want to teach often have no direct access to students despite working in teaching hospitals.
- Greater emphasis should be placed on bedside skills in the undergraduate curriculum, through for example student log books, and through formal assessment of student performance at the bedside. This would further highlight the necessity of clinical skills, and would drive students to spend more time developing them.
- Protected time should be allocated to teach by, for example, incorporating it into job plans. There is an acknowledgement from the GMC that teaching duties begin at the level of the junior doctor. Tomorrow's Doctors states: "*Graduates must understand the principles of education as they are applied to medicine. They … must recognise their obligation to teach colleagues.*" (GMC 2009) However, at present, although there is an "obligation" to teach, doctors have limited opportunity to do so.
- The development of teaching skills should begin at undergraduate level, with the incorporation of both teaching methodology, and teaching opportunities into the curriculum. Tutorials led by senior medical students have been implemented successfully (Bulte et al. 2007; Colaco et al. 2006). A recent study showed that third year students found student led tutorials in cardiac examination as acceptable as that provided by senior cardiologists. Additionally, after the experience, medical students became motivated to teach (Sengupta et al. 2007).
- Junior doctors are an important and effective pool of teachers (Rodrigues et al. 2009). This group have freshly learned clinical examination skills, and are often keen to

impart their wisdom. Adequate training of this cohort of doctors, and adequate access to medical students, could vastly increase bedside teaching.

And more bedside teaching should only be viewed as a good thing.

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