Clinical leadership: a role for students?

Since the publication of the 'To Err is Human' report, patient safety and quality improvement has been an increasingly important agenda in health care. This article explores the role that students can play in leading change in health-care systems.

Student doctors are a committed army of enthusiastic activists dedicated to doing what they can to improve the lives of their patients. With research suggesting that as many as 1 in 10 patients acutely admitted to hospital are being harmed as a direct result of the health care they receive (De Vries et al, 2008), students with the leadership skills to take charge and lead change really can make huge strides to improving health-care systems.

This article explores some of the issues surrounding patient safety and quality improvement, provides practical examples of how students can take a leadership stance and makes a call to action to provide students with leadership training in the undergraduate curriculum.

Amy's story

It is 9am and Amy has already been on a ward round for well over 2 hours. She wanders from patient to patient with barely even enough time to catch each of their names.

Yet in this short time, Amy notices that some patients have not experienced a perfect hospital stay. She finds a patient who is hungry because he was not woken up to have breakfast that is now unappetising and a patient who is being given twice the recommended dose of aspirin despite having a history of peptic ulcer disease. She also notices that despite a patient on the ward having a hospital-acquired infection, there are no hand gel dispensers at the end of the beds. But what can Amy do? After all she is just a medical student.

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Since the publication of the *To Err is Human* report (Institute of Medicine, 1999), patient safety has become a priority for health services worldwide. Around 1 in 10 patients acutely admitted to hospital are harmed as a result of the care that they receive and for 7% of those patients, that harm will contribute to their death (De Vries et al, 2008). Furthermore, evidence suggests that more than three-quarters of medical students have observed a medical error (Seiden et al, 2006) and only half will report the problem to a senior colleague (Madigosky et al, 2006). The authors propose that students can take leadership stances to address these errors. History is testament to this. The death of Grahame Reeves following the removal of the wrong kidney in 2000 could have been prevented. A medical student raised concerns after reviewing Mr Reeves' abdominal radiograph in theatre. However, the opportunity to re-examine the film and prevent the mistake was overlooked and the patient tragically died 5 weeks later.

Students as agents for change

Students are already committed to improving the lives of their patients, yet many seem unaware of the potential hazards that health care can pose. With errors in health care being so commonplace, students see problems daily but either fail to recognize them or simply are not engaged in improvement efforts to minimize harm and improve care quality. Medical students, the future leaders of health-care systems, have been said to be socialized into a medical culture that permits overlooking or taking little or no action following events of harm (Hafferty and Franks, 1994). This is a missed opportunity. Students often have the most time and energy to be the eyes and ears of health care by helping it learn from its past mistakes.

There are systems in place for students to acquire the knowledge and skills to help improve health-care quality. The Institute for Healthcare Improvement Open School for Health Professions, based in Cambridge, Massachusetts, provides online courses on leadership, patient safety, quality improvement, organizational management and medical schools such as Cardiff University are now providing lectures on leadership and service improvement too (Cardiff University, 2011). However, while there is increasing emphasis on quality improvement for junior doctors in the foundation curriculum (Ellis et al, 2011), medical students are often missed and it is those early interventions that could potentially begin the shift to a culture of leading change to improve health care. However, culture change is complex and does not occur overnight. These skills must become part of the norm for students.

Students taking action

Students from around the world are already taking a leadership stance. The Institute for Healthcare Improvement Open School has a global chapter network consisting of local groups of students and faculty interested in improving health care at education and health institutions.

There are over 300 of these chapters globally with these students engaged in efforts to change health care for the better. For example, a group at University College London have been using online video testimonials from patients to improve the experience of having a general anaesthetic. Others from the University of Edinburgh have worked towards integrating patient safety and quality improvement into their medical curriculum (Institute for Healthcare Improvement, 2011). Nationally, students in Wales have been taking advantage of the diversity of clinical placements throughout the country by leading multicentred audits in venous thrombus prophylaxis and paediatric pre-

scribing errors. Furthermore, undergraduates have led international campaigns such as 'Check a Box, Save a Life' (Henderson et al, 2010) which encouraged students to raise awareness of and implement the World Health Organization Surgical Safety Checklist in operating theatres worldwide.

Taking a leadership stance

To outline how students can make a difference, this article uses the example of how Amy took important steps to demonstrate her leadership.

Spot a problem

First a problem must be identified.

Amy notes a patient is being given twice the recommended dose of aspirin and this could potentially lead to life-threatening complications.

Collect data

Is this an isolated problem or a sign of a more systemic issue?

She undertakes an audit of drug charts on the ward and identifies three other patients also on the incorrect dose.

Action plan

Come up with a way to solve the problem.

Amy takes these data to the ward registrar who agrees that this is a problem. He suggests that they meet with the new intake of F1 doctors to remind them that the correct prophylactic aspirin dose is 75 mg once daily.

Implement plan

Put your plan into action.

The meeting takes place and a discussion ensued about how the error occurred and how it could have spread. It transpired that one of the new doctors had seen the 150 mg dose on the patient's drug chart, assumed it was correct, and proceeded to prescribe the incorrect dose for subsequent patients.

Monitor success

Collect data following implementation of your plan as this will show whether your intervention has worked and will provide impetus for further change in other areas.

The following week, Amy heads back to the ward to re-audit all the charts. She finds that although all of the aspirin doses are correct, some prescribers are not documenting their bleep numbers. The discovery of this new problem underscores quality improvement as a continuous process of collecting data and making changes for the better. By taking responsibility to improve health care through careful organization, planning and persistence, small changes can make big differences to patients in health-care settings and Amy therefore decides to start the quality improvement process again to try and improve documentation of bleep numbers.

Rising to the challenge

Students are an army of enthusiastic activists already dedicated to improving the lives of patients. Medical schools provide the technical skills to improve the health of patients although many fail to educate their students with the abilities needed to improve health care.

Given that recent research has suggested trends in adverse events do not seem to be improving (Landrigan et al, 2011), it is now more important than ever to engage students to take charge and lead change. Now is the time to engage and encourage students to make the move from passive observation to active participation in quality improvement to benefit those that already give us so much by being our teachers. Indeed, key figures in safety and improvement such as Sir Liam Donaldson have said that: 'Junior doctors are the future of the NHS, and it is vital that they lead and influence this open and transparent culture' (National Patient Safety Agency, 2011). The authors believe that this must also extend to students.

The current model of leadership residing towards the end of a medical career needs to be overhauled. It seems odd that doctors are expected to transform into leaders, almost overnight, as they take up their posts as consultants. The science of leadership, coupled with opportunities to nurture these traits, must be provided earlier on in medical school. **BJHM**

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KEY POINTS

- Harm in hospitals is persistent and commonplace.
- Students are an untapped army of enthusiastic activists with big potential to improve the health-care experiences of their patients.
- Students are making real differences to patients all over the world.
- Students need skills to take charge and lead change.
- Leadership and health-care improvement must be introduced into the early years of health professions training.