

# Medical leadership and the medical student

**As leadership and management are increasingly seen as a vital part of the doctor's daily repertoire, medical schools are starting to implement leadership development programmes as a routine part of the curriculum with opportunities for some students to take extended study in leadership.**

Our clear view is that doctors have for 25 years, perhaps longer, been failing to give the leadership of which they are eminently capable, and which society rightly expects of them' (Royal College of Physicians, 2010).

This quote sums up the recent consensus that doctors need to take on and develop leadership and management. A logical consequence of this requirement is the need to make leadership and management development much more explicit in the undergraduate curriculum. This is endorsed by the General Medical Council in the 2009 version of *Tomorrow's Doctors*:

**'Medical students are tomorrow's doctors. In accordance with *Good Medical Practice*, graduates will make the care of their patients their first concern, applying their knowledge and skills in a competent and ethical manner and using their ability to provide leadership and analyse complex and uncertain situations' (General Medical Council, 2009).**

## What's the research evidence?

Although policy agendas and professional standards demonstrate a clear need for doctors to develop leadership and management skills, the benefits of introducing development initiatives in the undergraduate years are unclear. Reflecting the relatively recent focus on targeted leadership curriculum developments, there is currently no clear empirical evidence to suggest that leader-

ship development in undergraduate programmes has an impact on doctors' subsequent leadership qualities and abilities.

Three studies carried out in the United States describe examples of leadership development in undergraduate programmes. A survey of medical school curricula suggested that leadership and team working skills can be successfully introduced into curricula. However, the authors concluded that many of the exercises designed to develop leadership and team working were conducted in the clinical setting, learning outcomes for leadership development were implicit rather than explicit and that leadership development was rarely the main purpose of the activity (O'Connell and Pascoe, 2004).

An optional retreat to develop leadership and teaching in medical undergraduates took place at Mount Sinai School of Medicine (Smith et al, 2007) and in self-reported pre- and post-test evaluations, participants reported significant improvements in their leadership skills. This was maintained in a follow-up post-test, 11 months after the programme. The participants indicated a strong preference for experiential learning and for working with an experienced mentor.

Varkey et al (2009) surveyed the views of medical students and faculty members on what leadership and management skills need to be developed in the undergraduate years, asking medical students in which of these areas they felt that they had made sufficient progress. They concluded that the best place to start the lifelong learning required is in undergraduate programmes. Emotional intelligence, confidence, humility and creativity are considered the most important personal qualities required in a medical leader with teamwork, communication, resource management and quality improvement the most important knowledge and skills to be taught in undergraduate programmes. Students felt least competent in areas of resource management, business practice and knowledge

of leadership theory and identified simulation, role play, faculty-led study groups and case studies as the most effective teaching methods.

A study of 22 medical chief executives in the NHS reported highly variable experiences of training and development for their posts (Ham et al, 2011). The report concludes that these self-styled 'keen amateurs' needed a more structured and formal approach to their development and that this should start much earlier in their career. This is consistent with a study of UK senior health professions' educators which notes variable (or no) experience of leadership development, a need for formalized structured programmes and lack of succession planning by organizations (McKimm, 2004).

A number of writers suggest that leadership development should start in the undergraduate programme (e.g. Clark and Armit, 2008). In 2009 and 2010 a series of recorded consultation events in medical professionalism '21st century doctor: your future, your choices' involved 492 medical students in detailed discussions. Students were asked their views on medical leadership and management. The report summarizing the findings recommends more leadership and management development in the undergraduate curriculum and further discussion and consultation on how to best achieve this (Levenson et al, 2010). Finally, a study investigating differing perceptions of male and female leaders in medicine concluded that all doctors would benefit from more understanding of what leadership and management entailed at undergraduate level (Crolla and Bamforth, 2011).

## Leadership and management skills

**'Obviously, leadership is an important part of management but every doctor is a leader... even the junior doctors are leaders in respect to the medical students, a fourth year (student) is a leader in respect**

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**to a third year, ...managers are leaders in an organisational sense where as all doctors are leaders' (Levenson et al, 2010).**

This quotation from a medical student acknowledges that undergraduates need to have leadership skills in order to be successful medical students let alone successful doctors but highlights the potential reluctance in medical students to recognize the need for specific management skills.

At medical school it can be argued that leadership and management development has two aims. First, to provide all students with the leadership and management skills that they will need to be a doctor and the understanding to work with in the health service that employs them (Chantler, 1999). Second, the curriculum must also offer inspiration and development opportunities for those who show potential for senior leadership at this early stage.

### What is the difference between leadership and management?

Leadership and management are often used interchangeably and there is a lot of overlap between the two activities and some debate over precise definitions of each. Both leaders and managers may have involvement in setting direction, allocating resources and motivating people.

Over the last decade, there has been a shift from the NHS being managed by 'professional' managers, the majority of whom did not have clinical backgrounds, to a mixed model where non-clinical managers work alongside clinical managers to deliver the service. This partly came about to address the widening divide between managers and clinicians. Managers were typically seen as target driven, budget focused and not appreciative of the complexities of delivering high quality patient care whereas doctors were seen as subverting management decisions and failing to understand the need to work towards targets and keep to budgets (McKimm, 2011). Management was seen as 'the dark side'.

These stereotypes were not only unhelpful, but also did not reflect the reality of many experienced clinicians and managers who worked together in harmony. However, increasing calls have been made to address these issues and engage doctors more actively in leadership (Imison and Giordano, 2009).

While it is now widely accepted that all doctors need leadership skills as part of being a professional, there is still some ingrained reluctance to see management as being a key role. Some doctors see management as a diversion from patient care and a compromise to their commitment to put the patient first (Levenson et al, 2010). A medical student expressed the following reservations:

**'These words "leaders" and "managers" are bandied about a lot and I have trouble actually seeing what that would really mean for a doctor. I can see what NHS managers do but I am not sure if that means a doctor taking the role of an NHS manager or just managing a medical team' (Levenson et al, 2010).**

Part of the role of medical educators should be to help medical students understand the differences and appreciate the importance of both of these activities.

### What styles of leadership could be introduced at undergraduate level?

Leaders are often characterized as all powerful, charismatic and heroic individuals who personally take their organization forward against great odds. In the current economic climate it is argued that we are in a 'post-heroic' leadership phase where a more inclusive and engaging style of leadership is appropriate (Alimo-Metcalfe and Alban-Metcalfe, 2006). Indeed, a longitudinal study of effective leadership in public sector organizations has shown that one personal quality – the ability to engage with others – is a significant predictor of organizational effectiveness (Alimo-Metcalfe et al, 2008).

It is not always easy for medical students and junior doctors to see where they might fit into the large bureaucracy of the NHS, and more difficult still to see what sort of leadership or management role might be appropriate. Followership and the ability to take leadership from another is an important part of the undergraduate experience to prepare students for working effectively in multidisciplinary teams. In a study of newly graduated doctors and nurses, '70% of nurses thought nurses should make decisions on behalf of an interprofessional team, but 80% of doctors disagreed' (Barrow et al, 2011).

Although this work was done in New Zealand, similar views would probably be expressed in other contexts. For example, the Royal College of Physicians (2010) suggested that doctors must accept that they will no longer automatically be leaders of the multidisciplinary team even though patients may continue to assume that the doctor is in charge. Many medical schools already have extensive programmes of interprofessional and multidisciplinary training and some aspects of team working and leadership may fit into this context.

### Curriculum frameworks

In response to the need for doctors' more active involvement in the review, planning, delivery and transformation of health services, the Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement with a wide range of stakeholders established a UK-wide project: Enhancing Engagement in Medical Leadership.

One outcome was the Medical Leadership Competency Framework (Figure 1) (NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges, 2010a), which describes the skills and competencies that medical students and doctors need in order to contribute to running successful services. The framework has five domains: demonstrating personal qualities, working with others, managing services, improving services and setting direction, but rightly recognizes that not all of these will be as

**Figure 1. Medical Leadership Competency Framework. From NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges (2010a).**



important to medical students so has a separate section for undergraduate medical education.

In *Guidance for Undergraduate Medical Education: Integrating the Medical Leadership Competency Framework* (Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement, 2010b) the framework has been mapped to *Tomorrow's Doctors* (General Medical Council, 2009) to ensure consistency between the framework and the General Medical Council's outcomes for medical education. Research is ongoing in five medical schools – Imperial, Warwick, Dundee, Cambridge and Peninsula – to explore the implementation of the framework.

### Developing leadership and management skills in undergraduates

Opportunities in the curriculum exist to practice and demonstrate leadership skills, many of which are set out as specific outcomes in the 'doctor as a professional' section of *Tomorrow's Doctors*. This outlines some of the types of activities that can be incorporated to enable students to demonstrate each aspect of the Medical Leadership Competency Framework. Some of the suggestions (labelled 'a possible scenario for...') are taken from the guidance for integrating the Medical Leadership Competency Framework into undergraduate medical education (Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement, 2010b) which includes resources already in use in a number of UK medical schools and is supplemented with detailed guidance giving specific outcomes for each stage of the Competency Framework.

### Demonstrating personal qualities

The fundamental underpinning of leadership development and medical professionalism is an understanding of the personal qualities that are important in the delivery of high standards of care. These qualities are closely linked with the qualities required to be a good doctor and are often part of personal and professional development modules or programmes. For example, students often keep a portfolio which includes a requirement for reflective writing. However, we cannot assume that students are fully

able to reflect effectively; reflection is also a skill that needs to be taught and developed, so activities in the early years should be structured to facilitate this.

### Working with others

Students on medical undergraduate programmes need to learn to cooperate and work collaboratively from the very start, both in the clinical setting and the classroom. All medical schools make extensive use of small group teaching and for those who use problem-based learning the collaborative nature is even more formally embedded. Interprofessional learning can also be effective in helping students to work more collaboratively with other health professionals (World Health Organization, 2010).

### Managing services

Understanding how services are managed is vital but becomes even more important in the current climate of structural reorganization and cutbacks in public spending. Students need an understanding of health-care systems and organizations coupled with opportunities to engage in management activities.

### A possible scenario to explore managing services

While on placement at their local hospital, students C and L are invited to work with managers in the hospital complaints department to help investigate and respond to a patient complaint relating to a refusal by the organization to prescribe an expensive drug. The students review the letter of complaint, seek advice on the hospital policy for prescribing and how this relates to National Institute for Health and Clinical Excellence guidelines, and discuss the case with members of the clinical team. They help to draft a letter of response to the patient, and write a summary report which they present to their clinical supervisor and peers, highlighting the management issues that arose.

### Improving services

As well as the core curriculum and the clinical context, there is an opportunity to develop specialist student selected components that enable students to take part in service improvement activities or clinical audits. In some schools, student selected

components include an intercalated degree. For example, the Imperial College London MBBS/BSc programme has offered a very popular BSc in Health Management option (run in conjunction with the business school) since 1998. Students from this and similar programmes have gone on to undertake academic foundation programmes in clinical leadership and management.

### Possible scenario to explore improving services

Students in the early years of the curriculum meet with patients in the ward to implement the use of patient safety tools and medicine reconciliation in the clinical setting, having learned about and practised using simulation activities. Students record and critically evaluate the different challenges of using these in clinical practice, and explore the links from this to possible audit of patient safety.

### Setting direction

Sheffield Medical School offers a leadership in the NHS symposium for graduating final year student doctors, where speakers with international reputations offer personal perspectives on clinical leadership. The symposium provides an understanding of different leadership styles, the role of emotional intelligence in leading and managing others and the role of 'nearby leadership' in the NHS. It also allows students to analyse their own experiences of leading and being led during clinical rotations. Students particularly value the emotional intelligence component and the exercises intended to develop self awareness.

Liverpool Medical School offers fellowships for students who have been elected to lead the student medical society, during which the students undertake a research project on an aspect of medical leadership and write a reflective report discussing their own leadership development during the fellowship.

### Assessment

The literature on developing leadership and management skills in undergraduate curricula provides very little discussion on how to assess these skills within undergraduate programmes. There is, however, an extensive literature on assessing professionalism (e.g. Arnold, 2002; van Mook et al, 2009) and many of the issues are common to both.

The guidance for integrating the Medical Leadership Competency Framework into the undergraduate curriculum suggests using a range of existing formative and summative assessment methods including portfolios, reflective writing, multisource feedback, structured clinical assessments (e.g. objective structured clinical examinations) and written examinations. Peer assessment is also being used more widely in the assessment of professionalism (Garner et al, 2010) and could be adapted to assess leadership and teamworking skills.

The Liverpool curriculum has introduced an innovative assessment tool for leadership and teamworking. A prototype was created using focus group data, literature review, analysis of current existing tools (e.g. anaesthetists' non-technical skills; Fletcher et al, 2003) and expert review of measured domains. Final year students' teamworking and leadership skills were assessed using a standardized clinical set up and scenarios in a patient simulation centre. The scenario had several components including testing for the ability to challenge a senior when he/she was clearly in the wrong and when patient safety was compromised. The scenarios were video recorded and independently evaluated. Project results showed that the Liverpool tool was easy to use in a simulated clinical environment with satisfactory inter-rater congruence and validity. Further work is in progress to validate the tool in multiple clinical scenarios and the workplace.

## Conclusions

The Medical Leadership Competency Framework is a powerful and highly useful tool that will enable medical educators to structure leadership and management development in medical students. However, we need to keep a critical eye on the debate about the ultimate effectiveness of a competency-based approach to leadership development (Alimo-Metcalfe et al, 2008) and to ensure that introducing leadership along with other new requirements such as research and teaching skills does not further overburden curricula. More consensus and research needs to be undertaken on what the theoretical basis should be underpinning the leadership curriculum, who should deliver leadership training and how to ensure teachers are appropriately equipped.

Further work on developing innovative ways of developing and assessing leadership skills for large cohorts of students, coupled with research evaluating the effectiveness of the Medical Leadership Competency Framework, will ensure that the next generation of doctors are fully equipped to meet the challenges of maintaining effective patient care in conditions of ongoing change and resource constraints. **BJHM**

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## KEY POINTS

- Doctors and medical students are required to demonstrate leadership and management skills.
- The Medical Leadership Competency Framework sets out competencies and suggestions for undergraduate medical education.
- Developing competence in understanding yourself, personal qualities and working with others are already embedded in personal and professional development programmes, but not always 'labelled' as leadership.
- Some challenges remain in introducing leadership development and appropriate assessments in already crowded curricula with large numbers of students.
- Leadership development needs to be seen as part of lifelong learning.