Engaging medical students in leadership and quality improvement through a formal educational programme

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Categories: Medical Education (General), Students/Trainees, Teaching and Learning

Received: 25/09/2016
Published: 04/10/2016

Abstract

**Background:** Undergraduate medical training in medical leadership is limited, and there is a general negative perception among medical professionals towards leadership and management.

**Aims:** To improve perceptions of leadership training and encourage leadership activity amongst medical students.

**Method:** A leadership student-selected component (SSC) was designed offering formal leadership education and engagement of students onto leadership and quality improvement projects. The initial cohort consisted of 8 third year medical students. Students were given questionnaires exploring their attitudes and perceptions towards leadership before and after the SSC.

**Results:** The students had no previous formal undergraduate education in leadership. Engagement in the SSC considerably enhanced the perception of leadership and management among students. The students also reported having more confidence in engaging with leadership projects and reported feeling more likely to be involved with leadership projects in future.

**Conclusions:** A formal leadership educational programme which engages students in real leadership and quality improvement work enhances the perception of leadership and inspires students to undertake leadership roles in future.

**Keywords:** Leadership, Quality improvement, Developing leadership
Introduction

The NHS is currently undergoing one of the largest and radical periods of change since its inception in 1948; with a perfect storm of issues including funding restraint, austerity and an ageing population with changing healthcare needs (Appleby, Galea, & Murray, 2014). In this challenging context, the Medical Leadership Competency Framework (MLCF) has identified the leadership qualities and competencies expected of doctors in the UK to meet these demands (Spurgeon & Down, 2010). Although leadership classically stems from the top of the medical hierarchy, it has been argued that transformation of the NHS requires a flattening of hierarchical structures and engagement of more junior staff (Grint & Hoult, 2011).

The importance of leadership and management is increasingly recognised within medical school curricula in the United Kingdom, however the majority of doctors entering their careers have little formal education or experience in this field. This is reflected in the negative perceptions of medical students and junior doctors towards the field and the reluctance of many doctors to take on leadership roles due to a perception of leadership and management that it is 'top-down, target-driven and harsh' (Limb, 2014).

Given the need for future leaders to take on the challenges highlighted above, and the negative perceptions towards the field, we organised a student selected module (SSC) with the explicit aim of introducing third year medical students at Brighton and Sussex Medical School, UK to leadership theory and actively engaging them in leadership and quality improvement projects. The students were surveyed before and after the module to assess their perceptions towards the field of medical leadership and establish whether formal education and engagement in leadership projects would have a positive impact.

Methods

Participants

Students in their third year studying at BSMS were invited to enrol on the SSC entitled 'Changing the NHS – Leadership in Action'. 8 students enrolled onto the module. One student had previously undertaken a Postgraduate Certificate in Medical Leadership. The remaining students had no previous formal leadership education.

Structure

The SSC ran between April - June 2016 and consisted of once-weekly dedicated afternoon sessions for formal teaching sessions or work on individual leadership and quality improvement projects. Students were encouraged to develop their own projects but could choose to engage in other projects being undertaken at the hospital. Projects undertaken included streamlining the referral pathway for patients with unilateral tinnitus, assessing the feasibility and financial impact of text message reminders before outpatient appointments and an assessment of seven-day services within the hospital.

The formal sessions included lectures given by Management and Leadership Academic junior doctors at the hospital and discussion forums hosted by senior management figures from the region. Completed projects were presented to a panel of senior managers and the students were supported with efforts to spread their work more widely.

Survey
Students were sent an online survey assessing their perceptions and attitudes towards the field of medical leadership and management before and after the SSC.

Results

All of the students revealed that they had not had any previous formal education in medical leadership. One response from a student stated’, 

"I didn't really know what it was before"

Seven out of the eight students believed that ‘more formal teaching on leadership and quality improvement’ was important for medical students. Whereas only two students described their opinion towards the field as ‘positive’ prior to the SSC, all students reported a positive opinion afterwards. Coupled to this increase in positive perception, all students agreed or strongly agreed that they could see themselves ‘getting involved in leadership projects’ in future, whereas only three students agreed with this statement prior to the SSC.

The students also reported considerable improvement in their confidence in engaging with quality improvement projects, their ability to identify problems within their hospital and think of possible solutions and their understanding of the principles of quality improvement.

Looking specifically at the outcomes of the leadership and quality improvement projects, all students stated an intention to pursue their projects further in order to establish a change. A case example of one of these groups is presented below.

Case Example

One group of students became involved in a project investigating differences in hospital care depending on which day of the week patients arrive. This project was supervised by the hospital Deputy Medical Director. The students gathered data on a series of consecutive hospital admissions over one week to identify differences and participated in discussions analysing the results. They recognised that the data capture tool – which had been created by the Department of Health was poorly designed and could result in some of the data being wrongly presented. They designed an alternative data collection tool under the supervision of the Deputy Medical Director and will be presenting this at a national conference with a view to getting it adopted nationwide.

Discussion

There is a paucity of formal leadership education for medical students, and even less opportunity for them to assume active roles in undertaking leadership projects. The aim of this project was to establish a formal educational module that addressed these issues and to explore whether this would have a positive effect on the attitudes and perceptions of students towards the field in general.

Our findings suggest that engagement in a formal leadership educational module improves students’ attitudes towards the field, and may make them more likely to pursue leadership and quality improvement work in future. This is particularly valuable as medical professionals early in their careers often have the most direct contact with patients and rotate regularly between departments and hospitals, enabling them to identify problems and take solutions with
them to new places of work (McCay, 2009; Pountney, 2014).

Our module differed to previous educational interventions, which primarily adopted lecture-based, didactic models (Clark et al. 2013, Dobson et al. 2008). Although these programmes did note improved perceptions of medical leadership, providing students with an opportunity to undertake authentic projects in real life contexts offers them the chance to develop wider professional competencies, beyond a simple understanding of the theory of management and leadership. Situational learning theory suggests that adult learners in vocational courses respond particularly well to such approaches, and this may explain the positive feedback we received. This has been observed with similar leadership and management programmes in the US and UK (Quince et al., 2014; Varkey, Peloquin, Reed, Lindor, & Harris, 2009).

**Conclusion**

Findings from our initial cohort offer an insight into a novel educational programme to engage future doctors in leadership and management. Although we appreciate medical school undergraduate curricula and timetables are stretched, offering experiential training through SSCs, for example, offers a means for students to achieve several key competencies and may serve as a launchpad to inspire future leaders. Expanding this SSC in the BSMS curriculum and following up the progress of students who have undertaken it will be key to further explore its success.

**Take Home Messages**

**Notes On Contributors**

Mohammed Al-Talib completed his MBBS at University College London and undertook an Academic Foundation Programme post at Brighton and Sussex University Hospitals Trust with a focus on medical leadership. He has a keen interested in medical education and research.

Danny McLernon-Billows has recently completed an education fellow post at Brighton and Sussex University Hospitals Trus. He has undertaken a Postgraduate Certificate in medical education and also has a particular interest in Glcbal Health.

Sophie Poore is GP trainee with an interest in Global Health. She completed an Academic Foundation Programme post at Brighton and Sussex University Hospitals Trust with a focus on leadership.

David Bloomfield is a consultant oncologist working at Brighton and Sussex University Hospitals Trust. He has a keen interest in teaching and leadership; he set up the MSc in Oncology at the Institute of Cancer Research as Joint Course Director and currently supervisors the leadership programme at BSUH.

**Acknowledgements**

None
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Appendices

Declaration of Interest

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