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DOCTORS IN TRAINING

The Impact of Postgraduate Leadership Development Fellowships for Doctors-in-Training: Reflections from a Fellow's Experience and a Narrative Literature Review

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Abstract

Postgraduate leadership fellowships are becoming more popular among doctors-in-training. The author completed a one-year leadership fellowship with the Health Education England (HEE), East Midlands. A personal reflective approach was used to present the experiences of the author following the completion of the fellowship programme. Using the PubMed database, a narrative literature review on the impact of postgraduate leadership development programmes on doctors-in-training was also performed, with a focus on published randomised controlled trials (RCTs) and systematic reviews. Personal benefits for the author were seen in the areas of improved leadership skills; completion of a postgraduate academic qualification; improvement of teaching skills; and honing of major trauma clinical skills. Furthermore, the literature review showed that there was high grade evidence from two randomised controlled trials, for the impact of such programmes in obstetrics/gynaecology simulation, and on team leadership for major trauma resuscitation. In addition, three systematic reviews reported positive impacts of such programmes at an individual level for participants' attitudes, knowledge and skills, with minimal evidence for the overall impacts on healthcare institutions.

Key words: leadership; fellowship; doctors-in-training; reflective practice; careers; literature review

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Introduction

Background

Leadership in healthcare involves the provision of a clear vision and achievable goals, to drive positive change within a group of people. It involves influence and direction. In contrast, management involves the organisation of human and material resources, to achieve the leadership vision or goals (Diggele et al, 2020). Leadership and management complement each other. Effective leadership development for doctors-in-training can have both personal and organisational benefits. This leadership development typically involves the use of interactive training workshops, mentoring, simulation, multi-source feedback, project management and action learning (Geerts et al, 2020). The medical leadership competency framework (MLCF) describes the leadership competencies required by doctors for driving organisational and personal change. It is focused on a shared leadership model, where

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everyone in a healthcare organisation, and not just formal healthcare leaders, is seen as a key stakeholder in driving positive change and achieving desired outcomes (Academy of Medical Royal Colleges and Institution for Innovation and Improvement, 2010). Leadership attributes that doctors can gain from leadership and management training include improved communication skills; better organisational skills; a better understanding of the workings of the National Health Service (NHS); improved awareness of self; effective negotiation skills; better networking skills; and a potential for career development in other areas of interest (Warren and Carnall, 2011). McKimm et al (2019) evaluated six consecutive cohorts that included 95 fellows involved in the National Medical Director's Fellowship Scheme in England, between 2016 and 2019. They found that the benefits of the fellowship to the fellows were seen in the areas of networking, improved motivation, improved aspiration, improved project management, communication and teamworking. Positive impacts on the host healthcare organisations were evidenced by the following: 60% of fellows completed their quality improvement projects in their respective organisations; fellows demonstrated an improved flexibility in the handling of various organisational leadership tasks suited to their level; and showed an improved understanding of how evidence improves practice. Finally, they demonstrated an improved knowledge around the interconnections between government institutions and national healthcare bodies.

Aim/Rationale

There are various leadership development programmes and fellowships available for doctors in the United Kingdom. The aim of this paper was to provide a detailed reflective narrative of a postgraduate leadership and management fellowship from the perspectives of a fellow who just completed the Health Education England (HEE) East Midlands leadership fellowship. A literature review on postgraduate leadership development programmes for doctors-in-training was also performed. For this paper, a "doctor-in-training" or "junior doctor" encompasses all post-qualification doctors below the level of a consultant who have a full license to practice.

Overview of the Role of a Health Education England (HEE) Leadership and Management Fellow-Job Requirements

In the author's experience, the Health Education England leadership fellowship in the East Midlands deanery was a one-year fellowship. The author completed this fellowship between November 2022 and November 2023. The fellowship can be done as a stand-alone job or combined with clinical work. The author had a 40:60 split between the leadership fellowship and clinical work in major trauma, respectively. A formal application process and competitive job recruitment interview was undertaken. For this specific fellowship, an undergraduate medical degree was essential. All prospective fellows were expected to have obtained a full General Medical Council (GMC) registration and license to practice. Clinical experience

at core training or specialty training level 3 (CT3/ST3) and above (in a training or non-training post) in a clinical specialty was an advantage. Good communication, teamwork, organisational and prioritisation skills were essential qualities required for prospective fellows. Previous formal leadership or managerial experience was not essential but was desirable. Academic experience in terms of previous quality improvement projects, clinical audits and peer-reviewed publications were desirable. Previous teaching experience was desirable, especially when undertaken in a formal setting. A postgraduate leadership or medical education qualification was not required, as this was incorporated into the job plan for prospective fellows.

The application process was typically done via the National Health Service (NHS) jobs website, while a virtual interview lasting about one hour was conducted for all applicants. For fellowship jobs with a clinical component, there was a choice of choosing between emergency medicine, acute medicine and major trauma. However, this can vary each year.

Overview of the Role of HEE Leadership and Management Fellow-Personal Experience and Reflection

Quality Improvement Project (QIP) Design, Innovation and Completion

There was an assigned educational supervisor (AES) who provided guidance to the fellow for the completion of the QIP. For the author's fellowship, the primary project was focused on improving the junior doctors' forum (JDF) at a major trauma centre. The junior doctors' forum is an avenue for all doctors below the level of a consultant to interface with the hospital management to address welfare issues, resolve problems around safe working hours and discuss contractual issues. Furthermore, it also provides an opportunity for doctors to improve their leadership skills through experiential learning. The QIP involved the completion of a detailed evaluation of the previous JDF process; working with senior colleagues to redesign the structure of the JDF; creation of a new JDF training curriculum; and provision of formal leadership training programmes for doctors interested in joining the JDF.

Personal Reflection

The project conducted by the author as part of the fellowship helped improve an area that was quite important to hospital doctors and the management. The challenges encountered in conducting the QIP were around effective networking and the identification of key stakeholders in the National Health Service (NHS) trust, especially for someone who was new to the trust. However, this was resolved by working with the AES and some leaders in the postgraduate medical education directorate who served as key links between the author and other stakeholders. Teamwork with the other leadership fellows was also useful for overcoming these challenges. These can be useful techniques for any future leadership fellow who encounters such challenges.

Leadership Training for Junior Doctors

In addition to the role of providing leadership training for prospective and current JDF members mentioned previously, the QIP of the author's fellowship also involved the creation of a new leadership training curriculum. This was useful for the preparation of core trainees/junior residents for the leadership and management demands of higher specialty training. This was aligned to the GMC's generic professional capabilities for leadership and management (General Medical Council, 2017).

Personal Reflection

The author found these to be excellent avenues to "walk the talk". The activities around the planning of the leadership training curriculum for colleagues were useful for "active experimentation" and "concrete experience", which are key components of experiential learning in the Kolb's cycle (Kolb, 1984). The author was able to leverage on the knowledge and skills gained from a concurrent masters in medical education programme to design this curriculum.

Quality, Service Improvement and Redesign (QSIR) Training and Deanery Leadership Meetings

At the beginning of the fellowship, fellows were provided QSIR training on the design and leadership of QIPs as part of a 4-day induction course, over a four-week period (one full working day per week). This was an interactive programme funded by Health Education England, with a goal of providing new fellows with the knowledge and skills for conducting robust QIPs that had objective impacts on patients and on colleagues. Additional quarterly fellowship meeting/training half-days with the associate postgraduate dean were held at the deanery headquarters. These interactive sessions involved invited speakers providing insights into the working mechanisms of the NHS (leadership hierarchy and structure) and mechanisms for the adaptation of leadership styles to suit various scenarios.

Personal Reflection

The above QSIR and leadership training sessions were useful for the implementation of my QIP. The experiential learning design provided a higher level of skills acquisition which might be different from that obtained from didactic lectures. The challenge encountered by the author with the above training was the occasional excessive detail in the QSIR training that may have been more useful for NHS staff engaged in full-time service improvement work at a more senior level. Nevertheless, the author will still recommend the QSIR training for all prospective fellows as they can tailor the delivered content to their learning or project needs.

Teaching

In addition to the opportunities for formal leadership and management training provision for doctors mentioned above, additional opportunities to teach basic clinical/surgical skills to doctors on the foundation programme were available (usually 4–6 sessions per year). Fellows were also expected to actively contribute to the departmental teaching programmes in their respective clinical divisions.

Personal Reflection

The author was involved in leading a formal teaching programme for doctors-in-training in orthopaedics for one year, prior to this fellowship. This served as a useful source of background experience for further teaching roles. The author found that the leadership and management training for fellows was a useful avenue to further improve the leadership skills of colleagues, enhance his teaching skills and implement the skills gained from the masters in medical education. The main challenge encountered around the teaching schedule was related to the logistics of travelling to the second hospital within the trust to deliver the clinical skills teaching sessions. This was resolved by getting approval and using planned fellowship study leave days (and study budget) for this. Furthermore, teaching skills were also improved by engaging in the local departmental teaching programme. Despite these challenges, the author recommends that formal engagement in a diverse array of teaching scenarios should be a part of leadership training fellowships.

Postgraduate Qualification Studies

Fellows had the option of completing a postgraduate qualification in leadership or in medical education depending on their career needs and preferences. The author had already completed a postgraduate certificate (PgCert) in learning and teaching in higher education (LTHE) prior to commencing this fellowship. Following discussion with the AES, the author opted to use the available funding and allocated study day per week to undertake the first year of a two-year masters in medical education (MMEd) programme (with the second year currently being undertaken by the author, following completion of the first year). The selected MMEd programme provided additional leadership, management, research methodology and teaching skills.

Personal Reflection

The MMEd programme provided an in-depth analysis of the various leadership styles and concepts. The author was able to apply these leadership styles to various scenarios both in clinical and non-clinical practice. Furthermore, it also provided a strong foundation on the use of media in medical education; the application of educational theories to practice; and the principles of research methodology. The author also applied leadership skills in practice through the leadership of a group of 10 other MMed students to write up a clinical trial research grant application proposal, as part of the MMEd second-year module. The experience from this MMEd programme provided insights into the challenges of leadership, like ensuring an adequate buy-in of the team into the leader's ideas; maintaining motivation during challenging time periods of a project; and effective delegation to maximise the strengths of the team.

Clinical Component of the Fellowship

The author's fellowship involved a 60% contract working in major trauma as a junior clinical fellow. This involved managing patients from trauma calls and trauma referrals; actively leading and managing trauma calls as part of leadership

exposure; daily multidisciplinary team meetings; patient care on the trauma wards; inter-specialty referrals; and preparation for audit meetings that reviewed the care provided to polytrauma patients. There were also opportunities to participate in trauma laparotomies. No formal participation in clinics was expected as part of the job. The main technical procedure junior clinical fellows were expected to master was intercostal surgical chest drain insertion for polytrauma patients.

Personal Reflection

The clinical component of this job provided an avenue for the author to utilise the various leadership styles gained from the leadership fellowship. For example, the use of a democratic leadership style was utilised for the multidisciplinary meetings, in contrast to an autocratic style for the high-paced trauma call scenarios. The clinical role also provided an avenue to further improve teamwork and communication within a complex specialty like major trauma. The author found that the above skills were useful for his current higher specialty training (ST3) job in trauma and orthopaedics.

Additional Personal Career Development Work for Fellows

In addition to the job activities, the author had to put in additional time and effort on improving his higher specialty training application portfolio for trauma and orthopaedics. This involved working on peer-reviewed academic publications, conference presentations, completing a postgraduate teaching qualification and studying for the interview. A structured end of fellowship appraisal was also undertaken as part of the GMC's good medical practice.

Personal Reflection

Finding a balance between the clinical job, leadership fellowship requirements and higher specialty interview preparation was daunting. However, this was achieved through effective organisation, effective delegation of certain work components, teamwork and motivation. The author feels the above has prepared him for any future stressful situations that will need effective multi-tasking. The author was successful at the ST3 higher specialty interview application in trauma and orthopaedics in 2023, partly due to some of the aforementioned experience. Finally, the fellowship provided a good work-life balance in the experience of the author. This last aspect is an area that many doctors strive to achieve in any new job role.

Narrative Literature Review

The literature review involved a search of the PubMed database from inception until 22 June 2024, using the search string: "(Leadership training) AND (doctors-in-training OR resident doctors)". Filters were applied, with a focus on clinical trials, systematic reviews and meta-analysis. Additional papers were found by searching the reference sections of the identified articles. Two randomised controlled trials (RCTs) and three systematic reviews were found. Looking at the RCTs identified, Hansen et al (2022) conducted a three-arm, double-blinded, multi-centre, randomized controlled trial (RCT) focused on the impact of leadership training

amongst 110 resident doctors involved in high-fidelity simulation activities in obstetrics and gynaecology. The study showed that the residents in the two intervention arms (those that had leadership training with-and-without implicit bias training) performed better than those in the control arm (those that did not receive any formal leadership training) for the simulation activities at 6 months. Furthermore, Fernandez et al (2020) conducted a single-blind RCT focused on the impact of leadership training on major trauma resuscitation "team leadership" skills. This study involved 60 second-and-third year postgraduate resident doctors (30 participants per trial arm). The study showed statistically significant improvements for the intervention arm (four-hour simulation-based leadership training) over the control arm (standard orientation/training) for five out of the seven assessed skill areas: presumed leadership; performing pre-arrival team briefs; conducting arrival briefs; performing team huddles; and communication skills like "seeking team input". However, no difference was found for the other two skill areas involving the communication behaviours of "planning" and "role allocation".

For the published systematic reviews on leadership development programs for doctors-in-training, Lyons et al (2021) conducted a systematic review on evidence-based medical educational leadership that showed that engagement in project work and mentorship were associated with positive organisational outcomes from such leadership programmes. However, no single leadership educational intervention was associated with improved personal outcomes for the participating individuals. This positive impact of mentorship and project work engagement correlates with the author's experience described in this paper, in relation to the leadership and management fellowship undertaken. Onyura et al (2019) conducted a systematic review focused on the impact of leadership training programmes for postgraduate doctors around tackling the leadership challenges within healthcare institutions. Using the Kirkpatrick evaluation model, the authors showed that most of the included studies were focused on the impacts of such leadership programmes at an individual skill development level (Kirkpatrick model, levels 1 and 2), with little evidence for the impact of such programmes at an institutional level (Kirkpatrick model, level 4). Furthermore, another systematic review on the impact of leadership programmes on graduate medical education (Kumar et al, 2020) showed that only one out of the 15 included eligible studies reported impacts of such programmes on knowledge and skills development (Kirkpatrick model, level 2), with the rest of the studies focused on the participants' attitudes and perceptions (Kirkpatrick model, level 1).

Looking at the wider perspective of healthcare leadership and organisational development performance, a study involving 17,949 employees from 86 NHS trusts showed that effective leadership in healthcare organisations had a positive correlation with clinical governance ratings and a negative correlation with the volume of patient complaints per year (Shipton et al, 2008). A systematic review focused on global leadership and management development programmes (Seidman et al, 2020) identified positive impacts in several areas: improved staff support and teamwork; reduction in patient complaints; improved communication between patients and staff; improved time management; reduced costs to organisations; and improved self-confidence amongst participants.

Discussion

This paper has provided a reflective narrative following the completion of a leadership and management fellowship. This was part of the Health Education England East Midlands leadership and management fellowship programme (Bentley, 2019). The key strengths of the fellowship programme were the opportunities for experiential learning and the practical application of the acquired leadership and managerial skills, especially in the application of the different leadership styles to various scenarios. The fellowship project and the MMEd programme provided positive impacts through the implementation of a better junior doctors' forum and the provision of leadership training for doctors. The clinical and non-clinical skills gained from the fellowship were useful for career development around getting a higher specialty national training number in trauma and orthopaedics. Challenges highlighted included the achievement of a balance between clinical work and fellowship needs; the extra organisational skills needed to ensure career development goals fitted into the fellowship program activities; a few issues with the QSIR training due to its complexity; and challenges with networking and liaison with key stakeholders for the QIP within the context of working in a large, relatively unfamiliar NHS trust. A narrative literature review has also been performed, looking at the benefits and limitations of leadership training programmes in-relation to how these affect doctors-in-training: two RCTs reported positive benefits within obstetrics and major trauma team leadership; while three systematic reviews reported mainly individual level benefits for participants, with minimal institutional-level impacts.

Formal leadership training opportunities in the NHS can be full-time, part-time or out-of-programme. These include: the Darzi fellowships; the HEE leadership and management fellowships in the various deaneries; and the NHS Leadership Academy's programmes like the Mary Seacole and Rosalind Franklin programmes tailored to doctors at core training level. Others include: the National Medical Director's Fellowship Scheme; and various locally available leadership roles supported by the Royal Colleges in the United Kingdom (NHS Leadership Academy, 2024; Nicol, 2011). Furthermore, Aggarwal and Swanwick (2015) argue that the large junior doctor workforce in the NHS should be actively engaged in leadership training and roles due to the significant patient-facing responsibilities they have, which makes them to be more likely to bring different perspectives to leadership. In addition, leadership activities for doctors who are not engaged in formal leadership job roles can be achieved through areas like quality improvement and service evaluation project leadership.

Limitations of This Study

The main limitation of this study is the fact that the main methodology was based on the personal experience and reflections within a United Kingdom leadership fellowship. The experiences may differ from those of other leadership fellows in other deaneries or countries. Furthermore, qualitative or quantitative data from a cohort of fellows has not been included in this paper. Thus, the findings from this paper may not be generalisable or applicable to other countries, institutions or

individuals. However, the paper has highlighted some reflective notes supported by evidence from the literature review that can potentially be useful for aspiring or current leadership fellows in similar programmes. Evidence from a well-designed research study involving multiple leadership fellows will be needed for future research in this area. This is in the pipeline, and will be conducted once the programme has been run for some years in the deanery.

Conclusion

This paper has provided reflective lessons from the experiences of a former leadership fellow in the United Kingdom. A narrative literature review looking at the evidence around leadership fellowships for doctors-in-training has also been performed, with level 1 evidence showing positive impacts for these programmes in "team leadership" within major trauma and "leadership simulation training" within obstetrics. Postgraduate leadership fellowships are becoming more popular among doctors-in-training, and can be undertaken part-time, full-time or as out-of-programme. These fellowships offer significant benefits for quality improvement in patient care and staff welfare, including the acquisition of useful skills for career development. These fellowships will continue to evolve to address the leadership and management training needs for the future NHS medical workforce.

Key Points

- Leadership and management fellowships for doctors-in-training offer an avenue for the development of the skills required for a future NHS workforce.
- These fellowships can be part-time or full-time and typically involve studying for a postgraduate qualification. They also incorporate project design, project completion, teaching, leadership skills training and clinical work.
- Effective mentoring and the identification of key stakeholders are leadership qualities that are required to achieve tangible project outcomes from these fellowships.
- The importance of excellent organisational, prioritisation and time management skills cannot be over-emphasized for the attainment of success in these fellowships.
- Level 1 literature evidence shows that formal leadership and management development training (for doctors-in-training) offer personal and patient care benefits, with limited evidence for the direct impact of these programmes on healthcare institutions.

Curriculum Checklist

This article addresses the following domains from the General Medical Council's (GMC) generic professional capabilities (GPCs) framework:

- Domain 1: Professional values and behaviours
- Domain 5: Capabilities in leadership and team working
- Domain 6: Capabilities in patient safety and quality improvement
- Domain 8: Capabilities in education and training

Availability of Data and Materials

All the data supporting the findings of this study are available within the manuscript.

Author Contributions

FCA was the sole author and was responsible for the design of the work, drafting and revision of content, and approval of the version to be published. FCA participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

Not applicable.

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Conflict of Interest

The author declares no conflict of interest.

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