Journal of Healthcare Leadership

Open Access Full Text Article

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REVIEW

The Importance of Leadership Development in Medical Curricula: A UK Perspective (Stars are Aligning)

This article was published in the following Dove Press journal: Journal of Healthcare Leadership

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Abstract: "Medical leadership and management" describes the engagement of doctors in the leadership and management of both individual patient care and of the departments, organizations and systems within which they work. Around the world, doctors are generally accepted as the leaders of clinical teams, holding ultimate accountability for individual patient care. However, the role of doctors as organizational and system leaders within healthcare, despite evidence of benefit, shows considerable variation. In this article, we briefly explore the history of leadership development for doctors, and then, taking a UK perspective on recent developments in undergraduate education and postgraduate training, consider the opportunities and challenges for medical schools, educators and doctors in implementing these. The future of medical leadership and management development is promising although there is still a lack of evidence on the longer-term outcomes and impact on patients of current interventions. It is clear, however, that faculty need to be skilled in holding effective developmental conversations and structuring formative experiences for those they educate, and that leadership development must be integrated longitudinally throughout a doctor's career, with undergraduate development being a critical stage for helping medical students recognize and understand their wider responsibility to the system, as well as the patient in front of them.

Keywords: leadership, leadership development, medical school, UK, curriculum, undergraduate

Introduction

Leadership has never been more important in healthcare. It is a vital factor in highly ranked healthcare organisations where capable, high-quality leaders, who embody a collective leadership style, are essential to support high-quality patient care.^{1,2}

Synthesizing the evidence for leadership and leadership development in healthcare, West et al, $(2015)^3$ concluded that: leadership is essential to both organizational performance and culture, longitudinal leadership development is vital, and leadership approaches such as collective, shared and collaborative leadership would be the most effective.

Leadership can be defined in many ways. We define leadership as process of social influence, occurring in a group context towards the attainment of a common goal.⁴ It requires an interlinked set of knowledge, skills and behaviors relating equally to the activities of leadership, management and followership.

Leadership must be shared and equally valued by medical, clinical and managerial professionals who work in partnership to deliver high-quality care. However,

© 2020 Till et al. This work is published and licensed by Dove Medical Press Limited. The full terms of this license are available at https://www.dovepress.com/terms.phg and incorporate the Creative Commons Attribution – Non Commercial (unported, v3.0) License (http://creativecommons.org/licenses/by-nc/3.0/). By accessing the work you hereby accept the Terms. Non-commercial uses of the work are permitted without any further permission from Dove Medical Press Limited, provided the work is properly attributed. For permission for commercial use of this work, please see paragraphs 4.2 and 5 of our Terms (http://www.dovepress.com/terms.phg). while there is considerable international variation, doctors are generally accepted as the leaders of clinical teams who hold ultimate accountability for individual patient care, while their managerial and interdisciplinary clinical colleagues progress as organizational and system leaders within healthcare.

Reflecting this dichotomy, doctors have longed viewed healthcare leadership and management as "the dark side" of medicine, leading to an "us vs them" culture with 'managers' being seen as primarily focusing on business targets and performance, and clinicians "against them", focusing on patient care. As a result, a pervasive ambivalence towards the importance of leadership development within undergraduate and postgraduate medical curricula has emerged, particularly regarding the effectiveness and timing of developmental interventions.

This "gulf" is a significant concern, as the most effectively managed hospitals with higher quality care tend to be those with higher proportions of medically qualified managers.^{5,6} Doctors are increasingly considered natural leaders within healthcare^{7,8} and some of the most challenging issues in healthcare require exceptionally strong clinical leadership.⁹ Without this, as seen in a number of tragic failings within healthcare organisations is centred around targets and financial balance, rather than quality and safety. And whilst medical schools are paying increased attention to the place of leadership in basic medical education,^{13,14} challenges exist¹⁵ and a widespread, standardized approach has yet to emerge.

In this article, we briefly explore the history of leadership development for doctors, and then, taking a UK perspective on recent developments in undergraduate education and postgraduate training, consider the opportunities and challenges for medical schools, educators and doctors in implementing these.

What Is Medical Leadership and Management?

"Medical leadership and management" describes the engagement of doctors in the leadership and management of both individual patient care and of the departments, organizations and systems within which they work.

Doctors' engagement in medical leadership and management takes many forms. Many doctors are already clinical leaders, directing patient care, service delivery and quality improvements, with some ascending to boardlevel roles, such as medical director. Doctors are also well represented in senior management positions in education and research, for example, as deans of medical schools or research leadership roles. In countries such as Canada, the Netherlands and Australia, it is also common for doctors to take on chief executive (CEO) roles – with some being attracted to the UK¹⁶ - but in many countries, it remains relatively uncommon for doctors to move into a CEO (or president) role in healthcare organizations, particularly in hospitals. For example, in a recent survey in England, only 19% of trust CEO's held a medical qualification¹⁷ and in the United States, of the nearly 6500 hospitals, only 235 are reported as being physician led.¹⁸

Whilst "doctors have been involved in the running of health services, locally, nationally and internationally, since the pioneers who initiated and organized health services many centuries ago ... [there is] emerging evidence of the relationship between the extent to which doctors are engaged in the planning, prioritization and shaping of services and the wider performance of the organization".¹⁹ So, even though few doctors aspire to, or take on the "top jobs", when they better engage in health service and system leadership and management, organizational performance improves.³ This view, and the evidence behind it, has influenced national and local policy internationally; led to a proliferation of leadership training schemes, fellowships and programs; and has persuaded regulatory and training bodies to include leadership and management competencies into their outcomes and standards for doctors.

The leadership and management competencies, outcomes, and standards expected at both undergraduate and postgraduate level in medical training varies widely.

Influential internationally is the Canadian "CanMEDS" framework which "identifies and describes the abilities physicians require to effectively meet the healthcare needs of the people they serve".²⁰ One of the seven CanMEDS roles is "leader", describing a leadership role whereby:

physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers²⁰

In England, a national "NHS Leadership Academy" was established in 2011, with an explicit purpose: "to work with our partners to deliver excellent leadership across the NHS [in England] to have a direct impact on patient care".²¹

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Offering a range of tools, models, programs and expertise, the NHS Leadership Academy (and its counterparts in Scotland, Wales and Northern Ireland) aims to support individuals, organizations and local partners to develop leaders, and celebrate and share where outstanding leadership made a real difference. Amongst these "tools and resources" was a clinical leadership competency framework²² – building on a specific medical model published earlier²³ – and a Healthcare Leadership Model²⁴ published later that clearly described a set of evidencedbased leadership behaviors for all working in the NHS.

The Faculty of Medical Leadership and Management (FMLM), also established in 2011, by all the UK medical royal colleges and faculties as a professional "home" for medical leadership, has produced it's own behavioral standards for medical leadership: "FMLM Leadership and management standards for medical professionals"²⁵ focusing on four key domains:

- 1. A doctor's ability to know and understand themselves and their impact on others.
- 2. A doctor's ability to know when to lead and follow, and how to establish and lead teams.
- 3. A doctor's ability to understand and positively contribute to the strategic direction and operational delivery of their organization.
- 4. A doctor's ability to understand and positively contribute to the healthcare system.

But it has not just been in the clear articulation of the knowledge, skills and behaviours required of medical leadership where the UK has led the way. For more than a decade, there has also been a sustained impetus to embed leadership development within medical education and training, at every level. And, by way of an illustrative case study, it is to a description of this collective endeavor that we turn to next.

Medical Leadership Development in the Undergraduate Curriculum

For many years, the only mention of healthcare leadership or management within the General Medical Council's recommendations for the undergraduate curricula, Tomorrow's Doctors²⁶ (the GMC's "blueprint" for basic medical education) was for students to Till et al

However, leadership and management knowledge, skills and behaviors are now consistently described in regulatory and training bodies' standards and outcomes, including for undergraduate students. Revising Tomorrow's Doctors in 2018, Outcomes for Graduates²⁷ lists "leadership and team working" as a core competency, and the General Medical Council now expects all newly qualified doctors to "recognize the role of doctors in contributing to the management and leadership of the health service" by the end of their medical programs.

As a result, within and across the university sector, there is now a sustained effort to embed leadership and management in undergraduate programs to specifically enable them to:

- (a) Describe the principles of how to build teams and maintain effective team work and interpersonal relationships with a clear shared purpose.
- (b) Undertake various team roles including, where appropriate, demonstrating leadership and the ability to accept and support leadership by others.
- (c) Identify the impact of their behaviour on others.
- (d) Describe theoretical models of leadership and management that may be applied to practice.²⁷

Concern remains however about the place of leadership in a "crowded curriculum", and surfacing leadership from the often-muddy waters of professionalism can prove difficult,²⁸ with the ability of faculty, both in university and practice settings, to meaningfully address the subject matter limited. Above all, universities "require the flexibility to tailor their leadership development offer in line with the philosophy and structure of their undergraduate medical programmes"¹⁴

Progress is, however, being made. In 2018, The Faculty of Medical Leadership and Management published an indicative undergraduate curriculum²⁹ based on a "Medical Leadership Competency Framework"²³ drawn up almost 10 years previously. The curriculum is part of a wider program of work being led in partnership with the UK Medical Schools Council and the NHS Leadership Academy. These activities, coupled with the identification of "leadership champions" at every medical school, have provided an anchoring framework within which those with a passion for leadership development can work collectively and collaboratively with like-minded colleagues to address challenges and feel supported. Subsequent publications have provided further guidance and showcased

demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others.²⁶

best practice in student-selected components, electives and intercalated degrees and a national program of faculty development, including newsletters, webinars and workshops has addressed issues such as personality profiling, online learning, assessment and clinical placements.³⁰ Furthermore, to support the implementation of the indicative curriculum, FMLM has established a kite-marking scheme for medical schools, through which schools can accredit themselves against their ability to deliver the leadership curriculum.³¹

For other healthcare professions, parallel work is ongoing. Revisions of regulatory standards, similar to that undertaken by the General Medical Council, are occurring across the board, including for pharmacy,³² nursing, and midwifery.³³ Health Education England, in partnership with the NHS Leadership Academy, has also produced detailed guidance³⁴ - built on previous research findings³⁵ - on the incorporation of leadership into health professions' curricula. The UK Council of Deans' flagship "150 Leaders" interprofessional student leadership program has generated considerable learning,³⁶ including spin-offs at Swansea³⁷ and other Universities. And finally, a program of faculty support and development is currently underway, led by a coalition of national bodies.

Medical Leadership Development in the Postgraduate Curriculum

Whilst this article focuses primarily on basic medical education, the journey to become a doctor that begins with medical school is lifelong, and for some medical specialties, the training itself can last up to 10 years. Within postgraduate medical training in the UK, there are 66 medical specialties and 32 subspecialties. While each have their own distinct curriculum, the General Medical Council has recognized the need for a clear and consistent approach that embeds common generic outcomes and content across them all, creating a Generic Professional Capabilities Framework.38 The Framework is organized around three fundamental domains (professional values and behaviors, professional skills, and professional knowledge), which reflect the domains in Outcomes for Graduates,²⁷ with a further six targeted domains, which include "leadership and team working", in order to prioritize particular areas of clinical and professional practice.

While many medical Royal Colleges and faculties are currently revising their specialty curricula in order to incorporate and reflect these domains, we present the current landscape alongside additional opportunities for doctors in training and qualified doctors to further their leadership and management development.

Foundation Curriculum

Revised most recently in 2016, the UK Foundation Programme Curriculum (a 2-year internship program immediately following medical school graduation) incorporates four sections into its syllabus, including "Communication, team working and leadership", with one of its key aims being to

provide the opportunity to develop leadership, team working and supervisory skills in order to deliver care in the setting of a contemporary multidisciplinary team and to begin to make independent clinical decisions with appropriate support.³⁹

These clear descriptors of the expectations from emerging healthcare leaders provide a clear mandate for the most junior of doctors to start developing a leadership role within the healthcare team. Throughout the UK, core leadership and management workshops are offered to all foundation trainees.

Specialty Curricula

From a cross-specialty trainees' perspective, wide variation in postgraduate leadership development exists within basic specialty training.⁴⁰ Despite the evidence base for medical leadership being widely accepted³ and reported enthusiasm from medical Royal Colleges, a relatively traditional view of medical leadership and "curriculum lag" often leaves leadership development to be seen as a competence that only requires development much later in a doctor's career once they approach the end of or have completed their training. This approach tends to reinforce the perception of medical leadership as an optional extra, rather than a core competency, and more significantly, because it is not fully integrated into training, as "the dark side" of medicine.¹⁹ That said, most postgraduate training programs now offer short courses in leadership and there are a number of ongoing initiatives to support both doctors in training and their supervisors to access and leverage the richness of work-based leadership development and learning.

Academic Careers in Leadership and Management

A number of formal "in-training" options are available for doctors in training who want to focus on medical leadership and management, and although the majority of

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academic "fellow" posts are in medical education and research, leadership fellowships are increasing annually.⁴¹

At Foundation level, although limited in their availability and highly competitive, some success has been seen through leadership and management focused academic foundation programmes.⁴² Trainees are required to identify and articulate an opportunity for improvement in the environment in which they work and proceed onto planning for it, implementing it, evaluating it and then disseminating the learning.⁴³ While evidence is emerging that these stimulate careers in medical leadership and management, they are insufficiently mature enough to conclusively determine their success, with the first cohort recruited only in 2009.⁴⁴

Once doctors move into specialty postgraduate training, where and how they progress in their leadership careers is less clear.

Many trainees are frequently required to forge their own untrodden paths through extra-curricular leadership development, rather than this being integrated into their training,⁴⁵ and trainees increasingly seek wider opportunities to develop their leadership skills through fellowships, postgraduate education, and standalone leadership and management training days, courses and conferences.

The main route for doctors at various stages of training, who are interested in developing their leadership skills and knowledge, is to undertake a Fellowship, some of which are designated as "quality" or "service improvement" posts, although there is huge regional variation with patchwork provision throughout the UK.

Fellowships exist at national, regional and local levels across the four UK nations, are highly competitive and while still relatively novel, emerging evaluations highlight their impact on individuals, organizations and the wider health service.^{46–51} Most fellowships include a funded formal "taught" component (some of which are award bearing programs such as a postgraduate certificate), an internship with one or more senior healthcare leaders, and a range of experiential learning including visits to other organizations, networking events and conference attendance.⁵²

Fellowships often require taking one or more years out of program however, and can negatively impact on the Fellows' return to training, with a significant mind-set adjustment required after working out of program with senior leaders in non-clinical environments, and then going back to being simply "one of many" trainees. Despite the evidence that medical leadership and engagement improves outcomes and performance,⁵³ Fellows have reported that often clinicians do not understand what they have been doing on their fellowship and how they could subsequently use their new skills to engage in service and quality improvements', with some reporting indifference, even hostility towards them.⁴⁶

Equity of access to leadership development is also highly variable, and while various funded opportunities are available, they often come at a direct and not insignificant personal and financial cost to trainees with much more needed to be done to ensure an inclusive approach.

Where Next for Medical Leadership Development?

While the task of leading change and improvement in healthcare is not getting any easier, the impetus to embed leadership and management in every clinician's repertoire has gained serious momentum, and collaborative efforts have had ripple effects throughout the system.⁵¹

Structures for developing and measuring leadership competence have been established, medical leadership (in the UK at least) has developed a professional "home", and whilst serious questions remain about how to develop clinical leadership and the extent of its impact on patient care, the general consensus is that "leadership is everyone"s responsibility' with medical leadership (and its development) integral within healthcare.

The future of medical leadership and management development is promising, yet a number of persistent challenges remain.

Firstly, leadership development for those who do not carry managerial responsibility, i.e. undergraduate students, requires careful thought and consideration. This includes the leveraging of non-health related "work" (such as leading on projects or running student societies), or the creation of simulated exercises to provide the substrate for development. Examples of good practice are accumulating however, and guidance has been published both in the medical²⁹ and non-medical³⁴ context.

Secondly, faculty with experience and confidence in leadership and management development, across both universities and healthcare services, is patchy and variable in focus. This is a particularly important issue in postgraduate medical training which continues to operate on a modified apprenticeship model. While supportive resources for faculty are emerging,⁵⁴ too few are sufficiently skilled in holding effective developmental leadership conversations or in structuring formative

leadership experiences for those they educate. Within universities, there are also a number of challenges and many unanswered questions about: how to integrate leadership into undergraduate programs; the relationship between "leadership" and 'professionalism (is it part of the professionalism curriculum or distinct?); what theoretical models of leadership and management should be used (if any); and how and by whom this should be taught and assessed.

Finally, leadership and management development for both undergraduate and postgraduate doctors in training suffers from a dearth of evidence about its impact. Most research is evaluative and reflects small-scale nongeneralisable innovations, and there is little published literature that looks at longer-term outcomes, or the impact on patients. This often leaves organizations and educationalists taking a leap of faith and struggling to fight for investment for specific aforementioned interventions, arguing solely on the rationale that it is "the right thing to do".

The future of medical leadership and management development therefore holds great potential to improve patient care but it must be integrated longitudinally throughout a doctor's career, with undergraduate development being a critical stage for raising awareness, professional identity formation, and helping doctors in training recognize and understand their wider responsibility to the system as well as the patient in front of them.

Disclosure

The authors report no conflicts of interest in this work.

References

- West MA, Lyubovnikova J, Eckert R, Denis J-L. Collective leadership for cultures of high quality health care. J Organ Effect. 2014;1 (3):240–260. doi:10.1108/JOEPP-07-2014-0039
- Berwick D. A Promise to Learn-a Commitment to Act: Improving the Safety of Patients in England. London: Department of Health; 2013.
- 3. West M, Armit K, Loewenthal L, Eckert R, West T, Lee A. Leadership and Leadership Development in Healthcare: The Evidence Base. London: The Faculty of Medical Leadership and Management, The Center for Creative Leadership and The King's Fund; 2015.
- 4. Northouse P. *Leadership: Theory and Practice 7e.* London: Sage Publications; 2015.
- Dorgan S, Layton D, Bloom N, Homkes R, Sadun R, Van Reenen J. Management in Healthcare: Why Good Practice Really Matters. London: McKinsey and co. and LSE; 2010.
- Goodall AH Physician-leaders and hospital performance: is there an association? The Institute for the Study of Labor (IZA) IZA Discussion Paper; 5830. Bonn: IZA; 2011
- Clark J. Medical leadership and engagement: no longer an optional extra. J Health Organ Manag. 2012;26:437–443. doi:10.1108/14777 261211251517

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- Doctors in Improving Services. London: The Kings Fund; 2012.9. Keogh B. Review into the Quality of Care and Treatment Provided by 14 Hospital Trusts in England: Overview Report. London: NHS
- England; 2013. 10. Department of Health. The Shipman Inquiry Sixth Report – Shipman:
- The Final Report. London: HMSO, 2005 11. Department of Health. Learning from Bristol: The Report of the Public Inquiry into children's heart surgery at the Bristol Royal Infirmary 1984–1995. London: HMSO, 2001
- 12. Francis R Mid-Staffordshire NHS Foundation Trust public inquiry. Final Report. HC 898-1. London; HMSO, 2013
- Chen T-Y. Medical leadership: an important and required competency for medical students. *Ci Ji Yi Xue Za Zhi.* 2018;30(2):66–70. doi:10.4103/tcmj.tcmj_26_18
- 14. Till A, McKimm J, Swanwick T. Twelve tips for integrating leadership development into undergraduate medical education. *Med Teach*. 2018;40(12):1214–1220. doi:10.1080/0142159X.2017.1392009
- Cadieux DC, Lingard L, Kwiatkowski D, Van Deven T, Bryant M, Tithecott G. Challenges in translation: lessons from using business pedagogy to teach leadership in undergraduate medicine. *Teach Learn Med.* 2017;29(2):207–215. doi:10.1080/10401334.2016.1237361
- Moberly T. The world-class talent signing for team NHS. *BMJ*. 2017;356:j1036. doi:10.1136/bmj.j1036
- NHS Providers. Clinician to Chief Executive Supporting Leaders of the Future. London: NHS Providers; 2018.
- Harvin A, Griffith N, Weber RJ. Physicians as executives: opportunities and strategies for health-system pharmacy leaders. *Hops Pharm.* 2014;49(10):985–991.
- 19. Spurgeon R, Clark J, Ham C. *Medical Leadership: From Dark Side to Centre Stage*. London: Radcliffe Publishing Ltd; 2011.
- Frank JR, Snell L, Sherbino J. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015.
- NHS Leadership Academy. About us. NHS Leadership Academy. Available from: https://www.leadershipacademy.nhs.uk/about/. Accessed November 1, 2019.
- 22. NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges. *Clinical Leadership Competency Framework Project*. Coventry: NHS Institute for Innovation and Improvement; 2011.
- NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges. *Medical Leadership Competency Framework*. 3rd ed. Coventry: NHS Institute for Innovation and Improvement; 2010.
- 24. NHS Leadership Academy. *Healthcare Leadership Model*. Leeds: NHS Leadership Academy; 2013.
- 25. Faculty of Medical Leadership and Management (FMLM). Leadership and Management Standards for Medical Professionals. 2nd ed. London: Faculty of Medical Leadership and Management; 2016.
- 26. General Medical Council. Tomorrow's Doctors: Outcomes and Standards for Undergraduate Medical Education. Manchester: General Medical Council; 2009.
- 27. General Medical Council. *Outcomes for Graduates*. Manchester: General Medical Council; 2012.
- Hardy LJ, Neve H. Professionalism and leadership in medical education: how do they differ and how are they related? *BMJ Leader*. 2019;3:67–68. doi:10.1136/leader-2019-000184
- Peake L, Spurgeon P, McKimm J, Jones S, Chapman A, Swanwick T. *Medical Leadership and Management. An Indicative Undergraduate Curriculum.* London: Faculty of Medical Leadership and Management; 2018.
- Faculty of Medical Leadership and Management. Resources for medical school faculty. Available from: https://www.fmlm.ac.uk/careers/ students/resources-for-medical-school-faculty. Accessed November 1, 2019.

- 31. Faculty of Medical Leadership and Management. Accredit your undergraduate curriculum for medical leadership. Available from: https://www.fmlm.ac.uk/accredit-your-undergraduate-curriculum-formedical-leadership. Accessed November 1, 2019.
- 32. General Pharmaceutical Council. *Consultation on Initial Education and Training Standards for Pharmacists*. London: General Pharmaceutical Council; 2019.
- Nursing & Midwifery Council. Future Nurse: Standards of Proficiency for Registered Nurses. London: Nursing & Midwifery Council; 2018.
- 34. Health Education England. Maximising Leadership Learning in the Pre-Registration Healthcare Curricula – Model and Guidelines for Healthcare Education Providers: 2018. London: Health Education England; 2018.
- 35. Health Education England. Understanding and Maximising Leadership in Pre-Registration Healthcare Curricula: Research Report. London: Health Education England; 2015
- Kolyva K, Butt N, Eames J. #150leaders: Fostering Student Leadership. Council of Deans of Health. London: Council of Deans of Health; 2018.
- 37. Mansel B Swansea's student leadership academy. Available from: https://councilofdeans.org.uk/studentleadership/category/case-studies /. Accessed November 1, 2019.
- 38. General Medical Council. *Generic Professional Capabilities Framework*. Manchester: General Medical Council; 2012.
- The UK Foundation Programme. *The UK Foundation Programme Curriculum 2016*. Surrey: The UK Foundation Programme; 2013.
- Till A, Anandaram A, Dapaah A, et al. Postgraduate leadership development: a cross specialty trainees' perspective. *BMJ*. 2016;352:i374. doi:10.1136/bmj.i374
- 41. Grote H, Smith J, Little J, Horridge M. Clinical leadership fellow schemes for junior doctors: a brief overview of available schemes and how to apply. *Future Healthcare J*. 2019;6(3):172–176. doi:10.7861/ fhj.2019-0030
- 42. Szmidt N, Stanley C, Tran S. The academic foundation programme in healthcare leadership and management – recommendations based on trainee experience. *BMJ Leader*. 2018;2:A25–A26.
- The UK Foundation Programme. *The UK Foundation Programme* Academic Compendium 2nd Edition. Surrey: The UK Foundation Programme; 2013.

- 44. McKimm J, Wong J, Wright R, O'sullivan H. Developing clinical leadership capacity among UK foundation trainees. Br J Hosp Med. 2011;72(7):406–409. doi:10.12968/hmed.2011.72.7.406
- Miller CJ, Till A, McKimm J. Exploring UK health-care providers' engagement of trainee doctors in leadership. *Br J Hosp Med.* 2018;79 (5):279–283. doi:10.12968/hmed.2018.79.5.279
- McKimm J, Hickford D, Lees P, Armit K. Evaluating the impact of a national clinical leadership fellow scheme. *BMJ Leader*. 2019;3:37–42. doi:10.1136/leader-2019-000135
- Phillips S, Bullock A. Clinical leadership training: an evaluation of the Welsh fellowship programme. *Leadersh Health Serv.* 2018;31 (2):226–237. doi:10.1108/LHS-06-2017-0038
- Pearson A, Ryan C, MacVicar R. Preliminary programme evaluation of the Scottish clinical leadership fellowship. *BMJ Leader*. 2018;2:40–42. doi:10.1136/leader-2017-000038
- 49. Donaghy G, Hutton R, Thompson N, et al. ADEPT: achieve, develop and explore programme for trainees: enabling trainees in Northern Ireland to lead and improve. *BMJ Leader*. 2018;2:25–31. doi:10.1136/leader-2017-000053
- Conn R, Bali A, Akers E. Multi-professional clinical leadership training in healthcare: a peer-led evaluation of the experience and benefits of the "Darzi Fellowship". *Int J Public Leadersh.* 2016;12 (4):317–335.
- Keijser W, Poorthuis M, Tweedie J, et al. Review of determinants of national medical leadership development. *BMJ Leader*. 2017;1:36–43. doi:10.1136/leader-2017-000023
- Malby R, Mervyn K, Boyle TJ. Darzi clinical leadership fellows: an activity theory perspective. J Health Organ Manag. 2018;32 (6):793–808. doi:10.1108/JHOM-05-2018-0133
- 53. Smith E. Review of Centrally Funded Improvement and Leadership Development Functions. NHS England. Available from: https://www. leadershipacademy.nhs.uk/wp-content/uploads/dlm_uploads/2017/10/ improv-ldrshp-dev-rev-sept15.pdf. Accessed November 1, 2019.
- 54. NHS Leadership Academy. Leadership development for doctors in postgraduate training. Available from: https://www.leadershipacad emy.nhs.uk/leadership-development-for-doctors-in-postgraduatetraining/. Accessed November 1, 2019.

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